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1965-1966
Report of the President

University of Massachusetts Bulletin

. . . It is to walk rapidly
Through civilizations,
Governments, theories,
Through poems, pageants, shows,
To form great individuals.

—Walt Whitman

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Board of Trustees

Organization of 1967	*Term Expires*
Frank L. Boyden of Deerfield	1967
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Edmund J. Croce of Worcester	1969
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Organization of 1967	*Term Expires*
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Most Reverend Christopher J. Weldon of Springfield	1969

Officers of the Board

Frank L. Boyden of Deerfield, Chairman
Joseph P. Healey of Arlington, Vice-Chairman
Kenneth W. Johnson of Amherst, Treasurer
Robert J. McCartney of Amherst, Secretary

Members and officers of the Board of Trustees pause for a photograph during a recent meeting at Amherst. From left to right are: Front row: *G. L. Pumphret, L. M. Lyons, Mrs. G. R. Rowland, President J. W. Lederle, Chairman F. L. Boyden, Vice-Chairman J. P. Healey, H. D. Brown D. M. Crowley.* Rear row: *Secretary R. J. McCartney, Treasurer K. W. Johnson, L. D. Lambson, R. D. Gordon, J. J. Maginnis, C. H. Plimpton, F. S. Troy, J. W. Haigis, F. C. Emerson, E. J. Croce.*

To the Board of Trustees:

It is with real pleasure that I submit to you my sixth Annual Report as president of the University of Massachusetts.

The 1965-1966 year has been one of both tangible and abstract progress, of consolidation, of self-assessment, and of increasing strength for the whole University entity through increased understanding among its ever growing number of component parts.

It has been a year in which the satisfactions of achievement have outweighed the unavoidable pangs of growth and change.

With the continued support of the citizens of the Commonwealth, the Governor, and the General Court, we have taken renewed sightings on our goal of greater educational service to all Massachusetts. We are confident of our course, and proud of our progress, but at the same time we are aware that greater challenges are always before us.

We pledge to you and to all Massachusetts' sons and daughters our unflagging dedication to the increase of opportunity in public higher education, and to the fulfillment of our common aims.

John W. Lederle

JOHN W. LEDERLE
President

December 31, 1966

REPORT OF THE PRESIDENT

The University of Massachusetts, in company with many other institutions of higher learning, has faced during the past year many new problems growing out of the necessity for institutional unity and cohesion on the one hand and a concurrent necessity for flexibility and diversity on the other.

This is perhaps another way of saying that growth and change, each of which abundantly attend on a university aspiring to greatness, require new concepts and new responses. We are proud of the manner in which the University of Massachusetts responded during 1965-1966 to the exciting challenges posed for the present and the future.

In essence, we are challenged to provide better education for more and more students. We are upgrading and enlarging our academic programs while coping with the intense demands of an unprecedented admissions pressure. These demands may be stated in four ways, each of which provides its own cumulative thrust: 1) The number of college-age youth in the Commonwealth of Massachusetts is increasing; 2) An increasingly greater percentage of college-age youth is seeking a higher education; 3) Massachusetts' superb private educational institutions, expanding less rapidly than public higher education, are nevertheless accepting a greater and greater percentage of their enrollments from outside the Commonwealth, and 4) As costs elsewhere climb, this University maintains its historic low-tuition policy for Massachusetts residents.

In addition to this multiple demand on our resources, we face the reality of increased requirements per student: on the average, the individual is pursuing higher education further and longer than ever before. At the same time, students are requiring greater depth and variety in the programs and courses offered.

It is not difficult to see that such a situation calls for an extraordinary effort—intellectual, physical, and financial—if its extraordinary challenges are to be adequately met.

Dr. John W. Gardner has said that post-secondary educational institutions should be prepared to accept as much as fifty per cent of the college-age population by 1970. All indications are that public higher education in Massachusetts will be called upon to absorb approximately one half of that fifty per cent by that year. In view of this probability, some interesting conclusions may be drawn from other statistical estimates.

The year 1965-1966 was our first twelve months following acceptance by the Legislature of the new Massachusetts Education Plan, commonly known as the Harrington-Willis Commission Report. This far-reaching and significant study, to which we will return later in this report, contains projections of enrollment for all public higher education facilities in the Commonwealth and of the coming numbers of college-age young people.

Covering the eight-year period from 1966 to 1973, the projections indicate our public higher education enrollment will double (41,295 to 83,843) while the number of college-age youth for the same period will increase by twelve per cent (338,858 to 380,043).

The implications for the University of Massachusetts are clear. With realization of our historic role as a land grant institution and of our present status as the statewide University of all the Commonwealth under authority of the Board of Trustees, we must move rapidly and responsibly toward our changing and expanding goals.

The University will continue to support a single set of standards and policies for all its campuses, on such matters as appointment of faculty, reliance upon statewide academic planning to achieve sufficient diversity without unnecessary duplication, and allegiance to the principles of efficiency and economy. Within these broad guidelines, each campus will enjoy the greatest possible administrative and academic autonomy, to encourage an increase in responsibility and local initiative, and effect a decrease in delay and paperwork.

In short, we seek to create and maintain environments allowing unity amid diversity, responsibility with growth, and balance with freedom.

"There is no such thing," writes Dr. Henry M. Wriston, "as 'mass education'. Every use of the phrase is a denial of a vital reality; education is a wholly individual process."

The University of Massachusetts is engaged in educating individuals, albeit in increasing numbers. Its expansion in Amherst, Boston and Worcester is based entirely on the demonstrable needs of individual students wherever they may live in the Commonwealth.

Striving to provide the greatest educational opportunity for all qualified persons, the University continues

to be guided by high academic standards and the historic low-tuition principle.

University students are drawn from a broad range of social and economic backgrounds. We are determined to increase the scope of our scholarship assistance, so that no academically qualified student will be denied admission for economic reasons.

As part of the University's responsibility to the public, we encourage special programs for the underprivileged. In this way, the talent of these potential achievers may be salvaged for the constructive benefit of society.

Another facet of this University's responsibility is the obligation to attain the highest possible stature in teaching, research, and public service, not only for the benefit of those who seek understanding or service directly at our doors, but in an even larger sense to serve as a standard of excellence for the Commonwealth's growing system of public higher education.

And with the past year's establishment of the Board of Higher Education as a result of the Harrington-Willis Report, there is now a forum for total planning of public higher education. The recommendations of the Report became law in June, 1965. Under this enabling legislation, which defines existing segments of Massachusetts' higher education system and spells out the functions of each, the University has embarked on an enlarged program of cooperation with the State Colleges, Technological Institutes, and Community Colleges. The University's official representative on the new board is Trustee Joseph P. Healey of Arlington.

New avenues of approach and new forums, however, do not function without a tangible expression of public support. The Commonwealth must be allowed to advance from its position of fiftieth in the nation in its per capita support of public higher education. As existing needs are clarified and new needs identified, we will continue to rely on the far-sighted support of the Governor and the General Court in securing the appropriations which are essential if the youth of Massachusetts are to be provided the range of educational opportunity available in other states.

The University commends the vigorous development of the Regional Community College system, recognizing the desirability of bringing the initial higher educational opportunity within commuting range of the greatest possible segment of its potential student body. At the same time, the University of Massachusetts continues to accept all qualified Community College graduates who apply, thus assuring a full and continuing higher educational program to round out the two-year Community College experience. University and Community College faculty work closely in development of curriculum and in preparation of teachers.

In many other spheres as well, we place a high value on cooperation with sister institutions, both public and private. In the Connecticut Valley, we have demonstrated to the entire nation the virtues and rewards of inter-institutional cooperation through the Four-College Cooperation Program between the University and Amherst, Mount Holyoke and Smith Colleges. Together the Four Colleges have now established a fifth, Hampshire College, at which a fresh and innovative educational program will put new concepts to the test, thereby adding an important educational resource to the Commonwealth.

HEAVY EMPHASIS CONTINUES to be placed on recruitment of outstanding faculty, deans, and department heads as vacancies occur and programs expand. We seek to provide our faculty with the best possible support: office space, laboratories, modern teaching assistance, equipment, and resources.

Of critical importance in securing and keeping an outstanding faculty is achievement of a truly competitive salary scale with appropriate fringe benefits. Great teacher-scholars continue in high demand and in short supply. We must rely on a purposeful program of faculty recruitment supported by adequate funds in order that our youth shall not be denied fruitful association with the best of mentors.

In this regard, support for the Salary Relief Bill, since enacted into law, was marshalled by the University Trustees and by the new Board of Higher Education. This legislation allows salaries outside the previously established scale for approximately one per cent of the professional teaching staff and for certain academic administrators. Without this law, salaries for the University's most responsible positions would remain below their competitive market value.

Academically, our first priority is the development of the best possible quality in existing programs, before setting forth on new ones. We aim to provide the entire broad spectrum of undergraduate liberal arts and pro-

Proposed Library Tower
Edward Durrell Stone, Architect

fessional curricula. As need is demonstrated, we shall achieve similar breadth in our graduate programs. While the entire instructional mode will be held to a level of quality comparable with that of the nation's leading universities, special attention will always be given to developing new courses and establishing new degree programs that will meet the Commonwealth's needs for skilled manpower.

While moving vigorously ahead in all areas, we have not forgotten our special tradition and mandates to serve the agricultural industry and allied resources development. The College of Agriculture has revised its curricula to emphasize basic studies in science, mathematics, and the humanities. Teaching and research have been improved, and imaginative approaches devised to train foreign students to cope with world agricultural problems. The number of students majoring in the College of Agriculture last year increased more rapidly than the enrollment of the University as a whole. Agriculture's impact will continue to grow as we recognize that the wisest use and conservation of all our natural resources is vital to our nation's living standard in a world of mushrooming population and rising consumer demands.

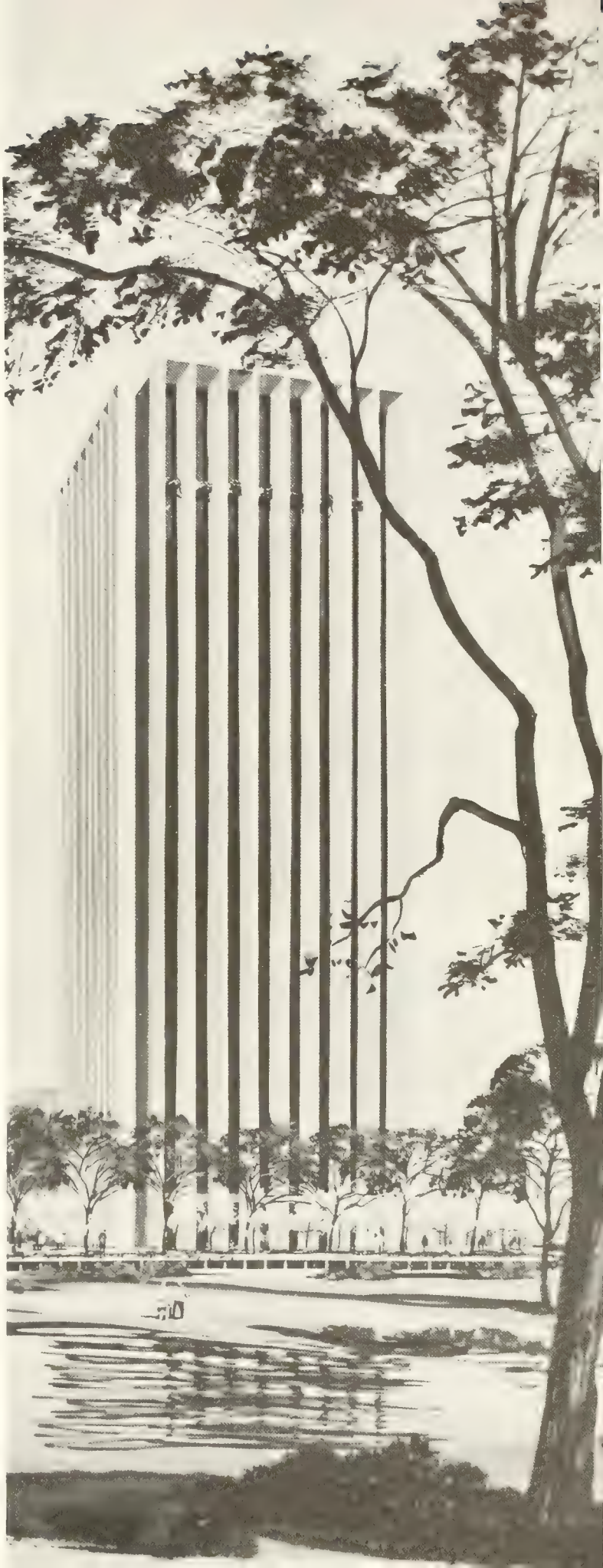
Research at the University continues to contribute to the advancement of human knowledge, though subordinated to the instructional areas in which it may eventually play a part.

In the instructional program, the University seeks close interaction between student and teacher. Opportunities are provided for every qualified student to pursue honors work or personal research. We are creating a climate favoring more independent study.

The living-learning environment in which our students work and grow, including the residence halls, must be made to contribute to the educational process. It must encourage, stimulate and broaden the awareness and intellectual horizons of the individual student.

As an academic community of common aims, the University continues to update administrative methods. It seeks new means of bringing faculty, staff, and students into responsible involvement with all University affairs.

Finally, the University recognizes its responsibility to provide the citizens of the Commonwealth with the best in continuing education, both on and off the campuses. This must occur on the collegiate and professional levels, and for degree and non-degree programs. Building on many decades of experience gained through the Coopera-



tive Extension Service, the University is moving toward organization of a broader support base for all its continuing education and public service facilities. This is a direct contribution to the general welfare and prosperity of Massachusetts' residents.

SPECIFIC ACCOMPLISHMENTS and milestones of 1965-1966, as for any other year, present a kaleidoscopic pattern of complexity. This section of the report provides a capsule view of highlights of the University's year.

The admissions picture continued to be one of pressure. The number of applications has more than doubled in the past four years. At the close of the fiscal year it was estimated that 3,100 freshmen would be admitted at Amherst in the fall of 1966, out of five times that number of applicants. About 1,200 freshmen were to be admitted at Boston, out of quadruple that number of applications. Also, approximately 6,500 Graduate School applications were on file for 1,000 openings.

Total enrollment at Amherst increased from 10,497 to 11,859 in September, 1965. Of this number, 2,240 were doing graduate work, compared with only a third that number five years before. The Stockbridge School of Agriculture attained a record high enrollment for the fourth year in succession, growing from 484 to 516 students. Summer Session enrollment grew from 1,855 to 2,464 in 1965.

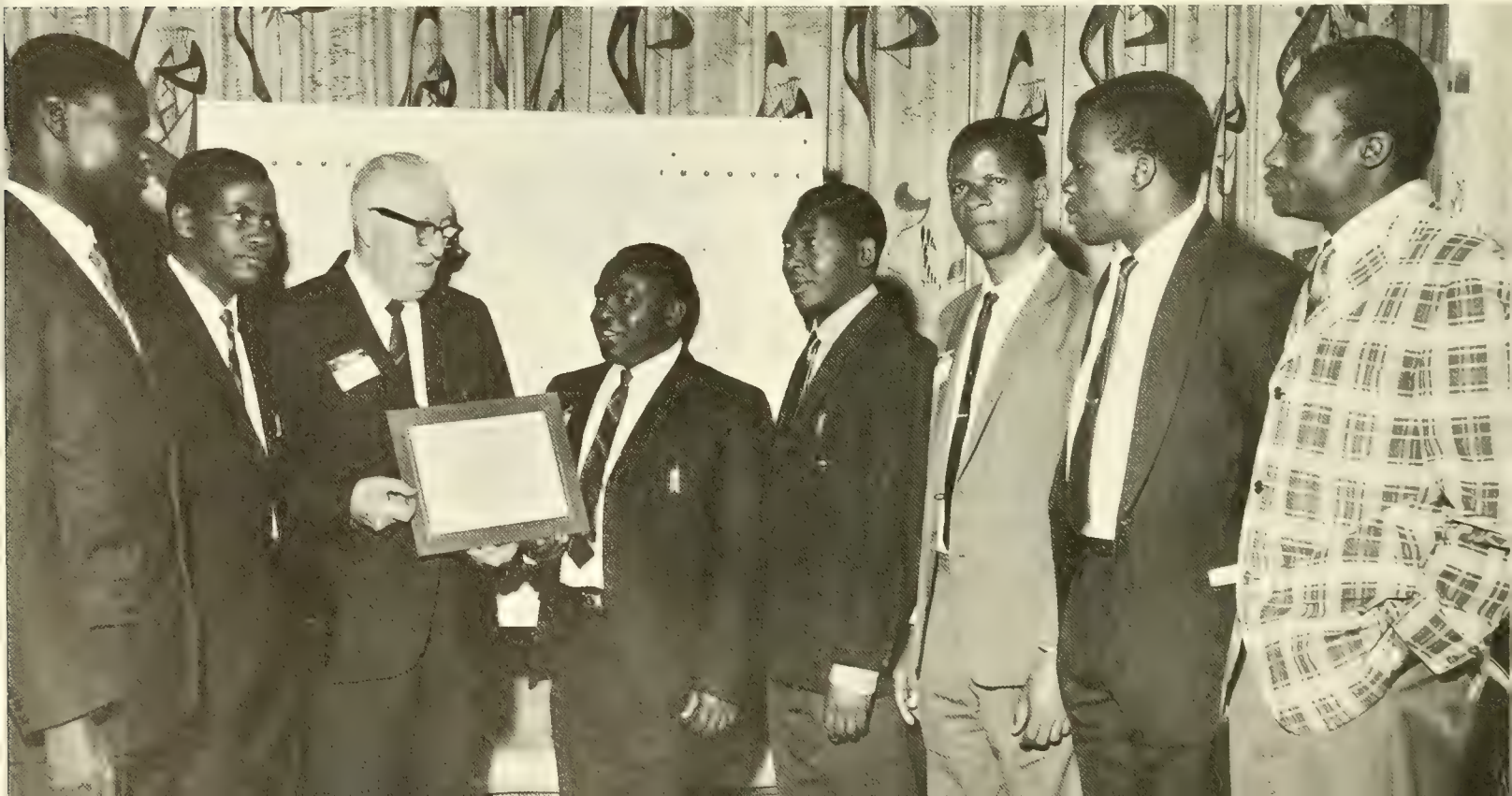
A total of 1,930 degrees were granted during the year, compared with 1,617 in 1964-1965. Of these, 1,463 were undergraduate and 467 were advanced, including 48 doctorates. The number of higher degrees conferred has more than doubled in the past three years.

Basic admission requirement of the Graduate School was raised from a 2.5 to a 2.75 undergraduate grade point average.

Gifts and grants for new and continuing sponsored research totalled $7.5 million for the year.

Seven new doctoral programs were approved: a Doctor of Education degree program as Specialist in Curriculum and Instruction, and six Doctor of Philosophy degree programs as follows: Business Administration, Industrial Engineering, Nutrition and Food, Forestry and Wood Technology, Wildlife and Fisheries Biology, and Polymer Science and Engineering. The latter is a cooperative program involving the Polymer Research Institute, School of Engineering, and Chemistry Department of the College of Arts and Sciences.

Trustee Hugh Thompson of Milton presents certificates for successful completion of International Agricultural Training Program at the University.



Dr. John H. Dittfach (left) receives the 1965-66 Distinguished Teacher of the Year Award from President John W. Lederle.

Six new master's degree programs were approved: Anthropology, Music, Nursing Administration, Nutrition and Food, Polymer Science and Engineering, and Veterinary Science. In addition, the studies toward the degree of Master of Landscape Architecture were reworked from a one-year to a two-year program.

Intensive curricular revision and expansion were accomplished. Highlights were the addition of Polish as the University's eleventh foreign language, and revision of the programs in Mathematics, Recreation, and Home Economics Education. The program for Spanish majors was revised. New introductory courses were approved for non-science majors in Chemistry, Physics, and Microbiology. The Public Health curriculum was divided at the undergraduate level into Environmental Health and Community Health & Health Education.

A blue ribbon Curriculum Study Committee, chaired by Dr. LeRoy F. Cook, associate professor of Physics, was named in the College of Arts and Sciences. Its first meeting was held with a group of deans and a consulting panel of twelve students. Aim of the committee is continual curriculum improvement.

The School of Business Administration had its first meeting with members of the newly-created Business Advisory Council. Membership is drawn from Massachusetts' business and industry. A new Center for Business and Economic Research was established, directed by Dr. George Simmons, formerly of the Columbia University Graduate School of Business.

The fine arts offerings to the general public were greatly expanded, with increased numbers attending exhibits of art and programs of music.

NDEA Institutes in History and in English and NSF Institutes in Botany and Engineering were successful.

Small in amount but mighty in its educational benefits, the Provost's Fund for Educational Experimentation and Course Improvement continued to exert great influence on curricular innovation.

Use of the University's new CDC 3600 computer exceeded 200 hours per month at year's end, and the approximate total of students served by the Computer Science Program rose from 500 to 1,200.

The University of Massachusetts Press published ten new books during the year.

The Water Resources Research Center welcomed its first full-time director, Bernard Berger, formerly with the United States Public Health Service.

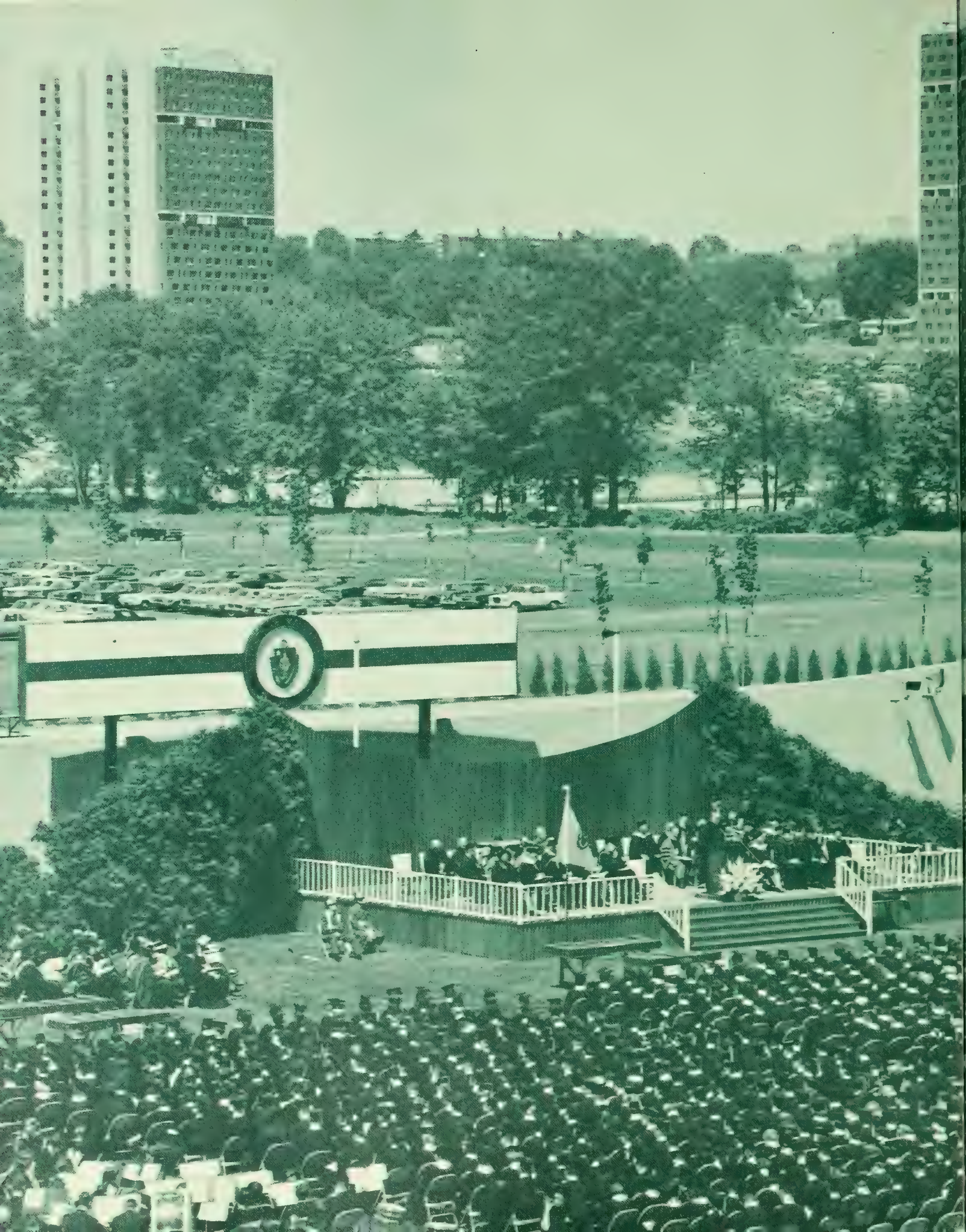
A new publication, the *Parents Report* of the School of Engineering, received favorable comment from its readership among parents of freshman engineering students.

An internal review of student publications was initiated, one of many outgrowths of a continuing dialogue among students, faculty, administrators and trustees, seeking better understanding of mutual concerns and a broader approach to University affairs.

Dr. John H. Dittfach, professor of Mechanical Engineering, was presented the annual award as Distinquished Teacher of the Year. Miss Roberta M. Bernstein, who achieved an A grade in each course during her four-year program, was presented the first Associate Alumni Award for Outstanding Scholarship at the 1966 Commencement.

Special emphasis was placed during the year on two projects of vital importance: the University's library resources and the University College concept, a completely self-integrated living-learning unit within the campus-at-large.

The Board of Trustees approved sketches by Architect Edward Durrell Stone of a proposed Library Tower which would add 320,000 square feet of space, with room for 1.4 million volumes. This twenty-eight-story structure with alternating floors of stacks and study areas, will seat 3,000 students. Conversion possibilities incorporated in the plans would raise the total capacity to two million volumes. The preliminary sketches for the exciting project have brought enthusiastic comment from librarians and the public across the nation.



Report of the President

Commencement 1966

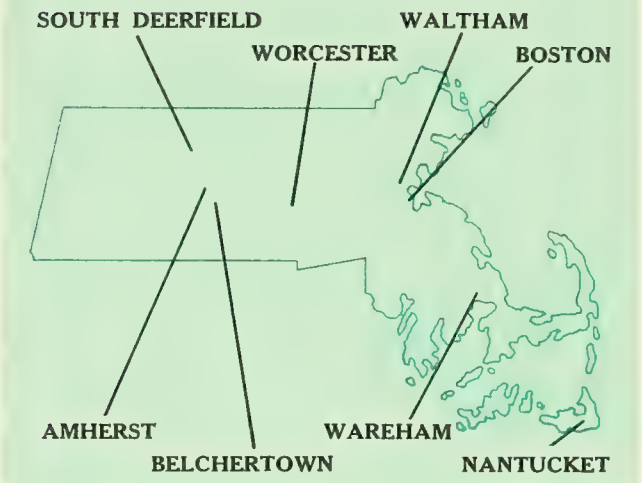
The University added 70,000 volumes to its collections during the year on its way toward a minimum of one million volumes by 1970. A total of $750,000 was spent during the year on books and periodicals. A Special Collections Division for rare and expensive acquisitions was inaugurated. The University also joined in the All Books Current program. Under this plan, all suitable books published in Europe and North and South America are automatically shipped to the University.

As an important sidelight, a survey during the year showed that 84.6 per cent of the student body use the University's reserve book collection.

The concept of a University College, a stimulating outgrowth of the Residential College programs already in effect, was approved in principle. This would be a refinement and extension of the living-learning environment in successful operation at Orchard Hill Residential College and initiated in the fall of 1966 at the Southwest Residential College.

Present plans call for a completely separate residential college, with its own dean and faculty, living and dining areas, and facilities for faculty offices and classes. In essence, University College would be a 5,000-student institution, under the same governance as the other segments of the University. It would allow for completely new curricular arrangements, and provide a unique laboratory for needed educational testing on a broader scale than is now possible elsewhere in the University. The concept has the approval of the Trustees, the Administration, and the Committee on Faculty and Educational Policy. The anticipated opening date is September, 1970.

Preparations for the fall opening of the new Southwest Residential College facilities placed a greatly increased load on the entire University, most particularly on the Student Personnel Services. This organization, and all others connected with what was historically our greatest single effort at sudden physical growth, deserve high praise.



ALTHOUGH CENTERED in the heartland of the Commonwealth, the University of Massachusetts reaches out in many meaningful ways, across the state and around the world.

The growth of the University of Massachusetts at Boston during its first full year was an exciting milestone in higher education. Designed for commuting students only, the University at Boston will admit successive classes each year until a full four-year institution is achieved in the fall of 1968. Progress continues toward determination of a permanent site.

Work progressed on planning a totally new campus for the School of Medicine in Worcester. Architects for the facility were appointed. At year's end it appeared the School would rank in history as one of the most needed as well as the largest of the Commonwealth's construction projects.

In addition to these well-known facilities, the University now has units at five other locations in the state and six locations overseas.

These include an archaeological site and a technical writing workshop on Nantucket, research acreage in Belchertown and South Deerfield, the Cranberry Research Station in East Wareham, and the Department of Environmental Sciences at Waltham. In addition to research work at these field stations, the College of Agriculture is closely involved with Cooperative Extension Service work at Amherst, Waltham, East Wareham, and throughout the Commonwealth. It administers one of the overseas programs. The Extension Service reached more than 50,000 Massachusetts youth through 4-H, and approximately 100,000 homemakers through adult education programs during the year.

In cooperation with the government of Malawi, Africa, and the U. S. Agency for International Development, the College of Agriculture is assisting with the development of a national university and a college of agriculture in this new nation. In addition, through the International Training Program of the College of Agriculture, students and Extension educators from emerging and established nations receive specialized intensive training in agricultural development on the Amherst campus.

Plans were made for an exchange program with the Tororo Girls School in Uganda, another U.S. A.I.D. project, dedicated a year ago last June after much preliminary work by the University's School of Education.

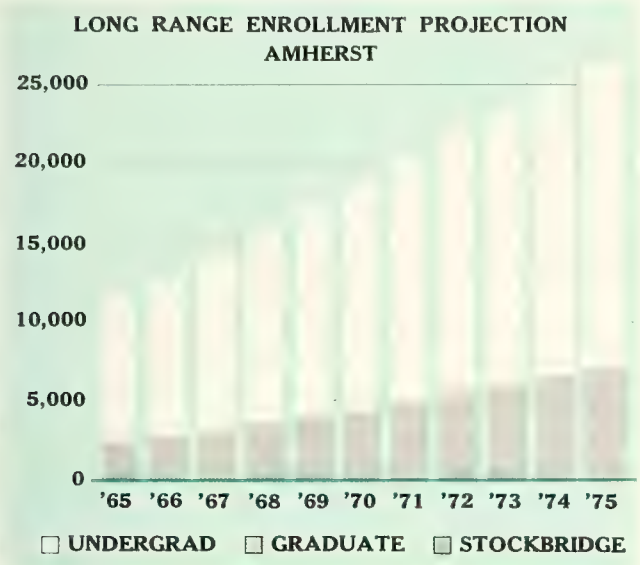
The University inaugurated summer academic seminars in England and Italy, enrolling almost 100 students in ten courses under tutelage of Oxford dons, and 65 students in Bologna with a faculty predominantly from the University of Massachusetts, presenting studies in which the Italian location plays a significant role.

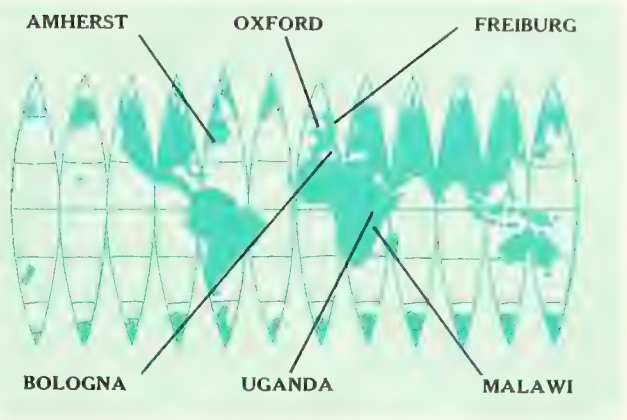
By vote of the Trustees, an Atlantic Studies Center of the University of Massachusetts was established at Freiburg, Germany, to present undergraduate and graduate programs on a regular academic year basis. Part of the operating budget is derived from non-state funds.

Especially worthy of note, the University reached out to 200 deserving but culturally deprived youngsters on its own Amherst and Boston campuses, participating in the Federally-sponsored Upward Bound program to assist promising students toward a realization of their potential.

AN IMPORTANT ADJUNCT to the expanding University, but never considered as an end in itself, is the continued improvement and enlargement of the physical plant. Aside from the growth across the Commonwealth and the world described earlier in this report, the University was involved during the report year with projects totaling more than thirty million dollars.

This figure includes $3.9 million for facilities accepted and dedicated, $17.5 million in projects virtually completed during the report year, and $11.3 million in construction in progress at year's end. In addition, preliminary planning proceeded on ten other projects. All





the latter are tentatively scheduled for completion by the end of 1970.

Dedicated during the year were Chenoweth Laboratory, for research and classroom use in food science and technology ($2 million), and Engineering Building East, including a small auditorium, a wind tunnel, and laboratory, classroom, and office facilities ($1.9 million).

Completed soon after the close of the fiscal year were the five high-rise residence towers ($14.5 million) and the second dining commons ($2.2 million) in the new Southwest Residential College area, and three sizable modernization projects: renovation of Goessmann (chemistry) Laboratory ($600,000), air-conditioning in Goodell Library ($153,000), and improvement to the boiler plant ($103,000).

Well under way when the year ended were seven other projects, listed with approximate cost and expected year of completion: four new low-rise buildings in the Southwest area ($5 million, 1967); new administration build-

Urban and Non-Urban Distribution of Massachusetts-Resident Students

URBAN AREAS	UNDERGRAD	STOCKBRIDGE	GRADUATE	TOTAL
BOSTON	2,946	135	221	3,302
BROCKTON	197	9	16	222
FALL RIVER	116	6	11	133
LAWRENCE	146	10	13	169
LOWELL	119	4	15	138
NEW BEDFORD	165	5	12	182
SPRINGFIELD — HOLYOKE	1,250	65	408	1,683
WORCESTER	387	31	38	456
TOTAL URBAN AREAS	5,286	265	734	6,285
TOTAL NON-URBAN AREAS	2,994	185	631	3,810
GRAND TOTAL — MASSACHUSETTS	8,280	450	1,365	10,095

Proposed Campus Center—Marcel Breuer, Architect

ing ($2.8 million, 1967); campus boulevards ($2 million, 1968); expansion of utility systems ($757,000, 1966); new poultry plant ($330,000, 1967); farm service building .($317,000, 1967), and emergency residence hall lighting ($110,000, 1966).

Preliminary planning was under way by the end of the fiscal year for ten other Amherst projects: the new library; the first phase of the Graduate Research Center, including the 16-story Chemistry Towers; Fine Arts Building; Campus Center; Bartlett Hall West, including psychology laboratory facilities; Bartlett Hall East, providing additional classrooms and faculty offices; Machmer Hall addition, including a 10-story tower; power house expansion; Central Storage building; and the first phase of a new physical education field.

Of all the foregoing, cost of the construction in the Southwest Residential Area and the Campus Center will be liquidated by various rents and fees. These projects are handled by the University of Massachusetts Building Authority.

We close the year past with satisfaction and enter another year with confidence, with renewed determination to remain both concerned and responsive.

We are attuned to the public expectancy—that the knowledge refined and disseminated by their State University will be knowledge for public use as well as knowledge for its own sake.

We strive always and in all ways to operate the entire University in an economical, efficient, and prudent manner, commensurate with the best business practices.

The fear has been expressed in some quarters that the University is growing so large that it is becoming impersonal and "no one cares about the individual any more." This fear is groundless. The University is concerned. It is concerned with the individual student and the taxpayer. It holds itself responsive to their desires and needs in every area of administration and operation.

Only by responding to individual needs is our general public mandate fulfilled. Only through concern for the individual can the University sustain the vital spirit necessary to create a great institution of higher learning.

The University is not a thing, nor a place; not a government, nor merely an institution. It is, rather, a condition and a process. And, above all, it is people.

Our task must be to harness its tremendous potential, to guide its inescapable patterns of change, and always to inspire its creative personalities to give no less than their best to its nurture and support.

REPORT OF THE TREASURER

Summary of Operating Funds
Fiscal Year ending June 30, 1966

Where the Operating Dollar Comes From . . .

	TOTAL AMOUNT	PERCENT OF TOTAL
Funds from University Receipts: (returned to State Treasurer)		
Tuition	$ 2,870,276.90	5.78
Residence Halls	1,304,177.05	2.63
Sales and Services	259,170.38	.52
Total University Receipts	$ 4,433,624.33	8.93
Net Funds from Taxpayers of the Commonwealth	24,808,111.86	49.98
Sub-Total	$29,241,736.19	58.91
Federal Government	5,091,214.22	10.26
Student Activities	590,203.69	1.19
Student Aid Funds	573,973.58	1.16
Student Loan Funds Notes Receivable	1,218,899.52	2.45
Gifts and Grants	2,257,801.00	4.55
Auxiliary Enterprises	8,971,222.53	18.08
Endowment Income	102,851.70	.21
Agency Funds	1,582,347.25	3.19
Total Funds Available	$49,630,249.68	100.00

How It Is Spent . . .

Instruction —		
State Funds	$11,528,784.52	27.53
Federal Funds	970,426.14	2.32
Gifts and Grants	90,848.97	.22
Total Instruction	$12,590,059.63	30.07
Library	1,460,275.37	3.49
Research	4,789,917.45	11.44
Public Services:		
Agricultural Extension	1,293,429.68	3.09
State Agricultural Control Services	451,365.20	1.08
Physical Plant and Residence Halls	6,053,007.73	14.45
Administration	1,658,449.49	3.96
Student Services	1,490,208.05	3.56
Scholarships	686,649.50	1.64
Student Loan Funds Notes Receivable	1,669,150.26	3.99
Student Activities	470,572.02	1.12
Auxiliary Enterprises	7,744,995.19	18.50
Agency and Miscellaneous	1,512,705.75	3.61
Total Funds Used	$41,870,785.32	100.00
Balances Carried Forward (Restricted funds*)	7,759,464.36	
Total Funds Used and Balances	$49,630,249.68	

*Balances, restricted funds, beginning of report year, $8,457,059.68

Principal Officers of Administration

John W. Lederle, LL.B., Ph.D.
President

Oswald Tippo, Ph.D.
Provost

John W. Ryan, Ph.D.
Chancellor, University of Massachusetts at Boston

Kenneth W. Johnson, B.S.
Treasurer

Robert J. McCartney, B.A.
Secretary

Leo F. Redfern, Ph.D.
Dean of Administration

William F. Field, Ph.D.
Dean of Students

William D. Tunis, Ph.D.
Dean of Admissions

Edward C. Moore, Ph.D.
Dean, Graduate School

Lamar Soutter, M.D.
Dean, Medical School

I. Moyer Hunsberger, Ph.D.
Dean, College of Arts and Sciences

Himy B. Kirshen, Ph.D.
Dean, School of Business Administration

Mary A. Maher, A.M.
Dean, School of Nursing

E. Ernest Lindsey, D. Eng.
Acting Dean, School of Engineering

Warren P. McGuirk, Ed.M.
Dean, School of Physical Education

Marion A. Niederpruem, Ph.D.
Dean, School of Home Economics

Albert W. Purvis, D.Ed.
Dean, School of Education

Arless A. Spielman, Ph.D.
Dean, College of Agriculture

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College of Agriculture
Annual Report - 1966

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COLLEGE OF AGRICULTURE

July 20, 1966

From: A. A. Spielman, Dean and Director

To: Robert J. McCartney, Secretary of the University

Subject: Annual Report, Fiscal 1966

This report covers the areas of activity for which the Dean and Director is administratively responsible. These are:

a. College of Agriculture
   - undergraduate instruction
   - graduate instruction

b. Stockbridge School of Agriculture
   - associate degree program

c. Massachusetts Agricultural Experiment Station
   - Amherst campus
   - Waltham Field Station
   - Cranberry Station, East Wareham

d. Cooperative Extension Service
   - Amherst, Waltham, and East Wareham campuses
   - twelve cooperating county governments
   - U. S. Department of Agriculture
   - School of Home Economics

e. State Control Service (Statutory Responsibilities)
   - feed, seed, fertilizer composition
   - dairy laws
   - shade tree laboratories
   - poultry disease control
   - mastitis (dairy cattle) disease control

f. Massachusetts Civil Defense Training Program
   - U. S. Department of Defense
   - Massachusetts Director of Civil Defense
   - Rural Civil Defense, Northeastern U. S. Region

g. International Agricultural Training Program
   - U. S. Department of State - Agency for International Development
   - University of Malawi

h. Cooperative Wildlife Research Unit
   - U. S. Department of the Interior
   - Massachusetts Department of Natural Resources

i. Cooperative Fisheries Research Unit
   - U. S. Department of the Interior
   - Massachusetts Department of Natural Resources

j. Community Service and Continuing Education Program, Title I, Higher Education Act of 1965
   - U. S. Department of Health, Education and Welfare, Office of Education
   - Massachusetts Higher Education Act Commission

Compiled by

Donald P. Allan
Assistant to Dean and Director

AAS:MRE

College of Agriculture

Office of Dean and Director

SPECIAL PUBLIC SERVICE ASSIGNMENTS

1. Member State Committee for Conservation of Soil, Water and Related Resources - appointed under Chapter 64, General Laws, Commonwealth of Massachusetts.

2. Member of Special Study Commission of the General Court regarding the county extension program - designee of President John W. Lederle.

3. New England Council for Economic Development representing Massachusetts Extension Service - by invitation of Committee on Expansion of Tourist Industry.

4. National Legislative Committee of Cooperative Extension Service representing the Northeast - appointed by Extension Committee on Organization and Policy.

5. Board of Governors National Agricultural Hall of Fame - elected by Executive Committee.

6. Committee for International Agricultural Extension, National Association of Land-Grant Colleges and State Universities - appointed by Chairman of Extension Section.

7. State Advisory Council on Community Service and Continuing Education Programs under Title I of the Higher Education Act of 1965 - appointed by the Director.

8. Massachusetts Administrator for McIntire-Stennis Cooperative Forestry Research Program - appointed by the Governor of Massachusetts.

9. Technical Advisor to State Pesticide Board - requested by the Board.

10. Member Massachusetts Economic Stabilization Board - appointed by the Governor.

COLLEGE OF AGRICULTURE

PROGRAMS PLANNED FOR FISCAL 1967

1. Develop interdepartmental and interdisciplinary undergraduate and graduate programs in the areas of --

    a. Natural Resources and Conservation
    b. Environmental Biology
    c. Agricultural Chemistry
    d. Industrial and Agricultural Microbiology
    e. Plant and Animal Genetics
    f. Regional Planning

2. Strengthen Extension-Continuing Education and Experiment Station programs in --

    a. Community Resources Development
    b. Water and Air Pollution Control
    c. Agricultural Business
    d. Regional Planning
    e. Water Economics

3. A complete conservation needs inventory of the watersheds, soils and land use, including projections in land use changes to 1975, will be made in cooperation with the United States Department of Agriculture.

4. Complete a state-wide inventory of the potentials for natural resources development now being made in cooperation with the Massachusetts Department of Natural Resources and the United States Soil Conservation Service.

MATERIAL FOR ANNUAL REPORT TO PRESIDENT
December, 1961

I. APPROPRIATIONS
Fiscal Year 1959-60, 1960-61, 1961-62

COLLEGE OF AGRICULTURE APPROPRIATIONS

Year	Instruction	Control	Extension Service		Experiment Station		Total
			State	Federal	State	Federal	
1959-60	$822,085.71	$385,222.16	$430,936.49	$423,637.00	$670,132.47	$433,485.00	$3,165,498.83
1960-61	740,375.51	410,573.25	483,429.00	460,429.00	777,713.85	434,655.00	3,307,647.00
1961-62	814,363.22	460,987.00	488,195.00	496,160.00	871,125.00	478,821.00	3,609,651.22

Totals for 1959-60 and 1960-61 are based on IBM expenditure report as of June 30. Totals for 1961-62 are estimates only as Personal Service Funds are never allocated.

MATERIAL FOR ANNUAL REPORT TO PRESIDENT
December, 1961

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COLLEGE OF AGRICULTURE APPROPRIATIONS

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1961-62	814,363.22	460,987.00	488,195.00	496,160.00	871,125.00	478,821.00	3,609,651.22

Totals for 1959-60 and 1960-61 are based on IBM expenditure report as of June 30. Totals for 1961-62 are estimates only as Personal Service Funds are never allocated.

COLLEGE OF AGRICULTURE

APPROPRIATIONS

Year	State Funds	Federal Funds
1963-64	$3,002,241.00	$1,121.096.00
1964-65	3,140,288.00	1,243,524.00
1965-66	3,252,086.00	1,334,741.00

PERSONNEL - NUMBER IN EACH RANK
(September 1963, September 1964, September 1965)

Professional Personnel	Sept. 1963	Sept. 1964	Sept. 1965
Dean and Director	1	1	1
Associate Dean and Director of Stockbridge School	1	1	1
Associate Director of Extension	1	1	1
Assistant to Dean and Director	1	1	1
Commonwealth Head of Department	1	1	1
Head of Department "A"	14	11	7
Head of Department, Academic Year	0	0	1
Commonwealth Professor "A"	1	1	1
Commonwealth Professor, Academic Year	1	1	Sab. Lv.
Professor "A"	53	43	45
Professor, Academic Year	4	5	7
Associate Professor "A"	31	33	38
Associate Professor, Academic Year	4	3	5
Assistant Professor "A"	46	45	40
Assistant Professor, Academic Year	10	8	16
Assistant Professor, Academic Year, ½ Time	1	1	0
Instructor "A"	21	20	13
Instructor "A", ½ Time	4	4	0
Instructor, Academic Year	0	3	1
Instructor, Academic Year, ½ Time	0	1	2
Visiting Lecturer	0	1	2
Lecturer, ½ Time	0	0	1
Sabbatical Leave	0**	6	3
Leave Without Pay	0	3	1
Staff Associate	2	2	2
Staff Assistant	0	0	2
Contract Personnel	7	8	10
TOTALS	204	204	202

**Included in overall count of personnel.

Figures do not include vacancies

JUNE 1966.

COLLEGE OF AGRICULTURE

ORGANIZATION CHARTS

1965-66

COLLEGE OF AGRICULTURE

INSTRUCTION
(Stockbridge, Undergraduate, Graduate)

Dean
Associate Dean
Assistant to Dean

Agricultural and Food Economics
- Department Head
- Faculty

Agricultural Engineering
- Department Head
- Faculty

Entomology and Plant Pathology
- Department Head
- Faculty

Environmental Sciences
- Department Head
- Faculty

Food Science and Technology
- Department Head
- Faculty

Forestry and Wildlife Management
- Department Head
- Faculty

Landscape Architecture
- Department Head
- Faculty

Plant and Soil Sciences
- Department Head
- Faculty

Veterinary and Animal Sciences
- Department Head
- Faculty

COLLEGE OF AGRICULTURE

MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION

Director
Assistant to Director

Departments

Agricultural and Food Economics

Agricultural Engineering

Cranberry Station

Entomology and Plant Pathology

Environmental Sciences

Food Science and Technology

Forestry and Wildlife Management

Landscape Architecture

Plant and Soil Sciences

Veterinary and Animal Sciences

Control Programs

Feed, Fertilizer, Seed, and Dairy Law

Mastitis Control

Pullorum Control

Shade Tree Laboratories

COLLEGE OF AGRICULTURE

COOPERATIVE EXTENSION

Director
Associate Director
Assistant to Director

Department	School of Home Economics	Cooperating Counties
Agricultural and Food Economics	Art and Design	Barnstable
Agricultural Engineering	Consumer Education	Berkshire
Cranberry Station	Food, Nutrition, Health	Bristol
Entomology and Plant Pathology	Human Development, Human Relations	Dukes
Environmental Sciences	Management	Essex
Food Science and Technology	Leadership Development	Franklin
Forestry and Wildlife Management	Homemaking Skills	Hampden
4-H and Youth Programs		Hampshire
Plant and Soil Sciences		Middlesex
Veterinary and Animal Sciences		Norfolk
		Plymouth
		Worcester

COLLEGE OF AGRICULTURE

1965-66

STUDENTS

Majors
Class Enrollment
Graduate
Post-Doctoral Fellows

COLLEGE OF AGRICULTURE

TOTAL CLASS ENROLLMENTS

(GRADUATE, UNDERGRADUATE, STOCKBRIDGE)

Department	Actual 1960-61	Actual 1963-64	Actual 1965-66	Estimated 1967-68
Agricultural and Food Economics	486	768	1,415	1,787
Agricultural Engineering	478	603	1,729	829
Entomology and Plant Pathology	442	905	1,189	1,487
Food Science and Technology	479	669	1,677	2,156
Forestry and Wildlife Management	648	550	957	1,081
Landscape Architecture	894	1,152	1,748	2,090
Plant and Soil Sciences	1,232	1,233	2,096	2,442
Veterinary and Animal Sciences	660	731	878	965
Totals	5,319	6,629	10,689	12,837

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COLLEGE OF AGRICULTURE

STUDENT ENROLLMENT (MAJORS) - FALL SEMESTER

(GRADUATE, UNDERGRADUATE, STOCKBRIDGE)

Department	1961	1962	1963	1964	1965	1966*	1967*
Agricultural and Food Economics	66	64	67	53	77	85	90
Agricultural Engineering	19	18	17	20	21	25	30
Entomology and Plant Pathology	26	28	26	33	34	35	40
Food Science and Technology	138	161	171	195	243	280	300
Forestry and Wildlife Management	175	179	185	212	260	300	320
Landscape Architecture	140	173	179	216	253	280	300
Plant and Soil Sciences	122	135	139	167	186	185	200
Veterinary and Animal Sciences	145	148	144	152	160	170	180
Totals	831	906	928	1,048	1,234	1,360	1,460

*Estimated

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4/14/66

COLLEGE OF AGRICULTURE

Department	Graduate Students M.S.	Graduate Students Ph.D.	Degrees Awarded M.S.	Degrees Awarded Ph.D.	Post-Doctoral Fellows
Agricultural and Food Economics	35	-	9	-	1
Agricultural Engineering	16	2	2	-	-
Cranberry Station	1	1	-	-	3
Entomology and Plant Pathology	19	3	3	1	-
Environmental Sciences	7	3	2	-	3
Food Science and Technology	20	24	3	4	-
Forestry and Wildlife Management	41	-	12	-	-
4-H and Youth Programs	2	-	1	-	-
Landscape Architecture	19	-	1	-	-
Plant and Soil Sciences	20	3	4	-	-
Veterinary and Animal Sciences	18	9	5	1	5
Totals	198	45	42	6	12

COLLEGE OF AGRICULTURE

FACULTY PUBLICATIONS

1965-66

AGRICULTURAL AND FOOD ECONOMICS

Bell, Ellsworth W.

Book Review - Borgstrom, Geor, The Hungry Planet, The Modern World at the Edge of Famine, Journal of Farm Economics, August 1966.
Report - Fowl Marketings in New England, December 1965.
Report - 1966 Forecast of Milk Prices, January 1966.
Report - Business Trends, March 1966.

Brown, Alfred A.

Bulletin - Economics of Broiler Feed Mixing and Distribution with Clark R. Burbee and E. T. Bardwell, N.H.A.E.S. 484, September 1965.
Report - Analysis of Eastern R ilroads Mileage Rate Proposal, Submitted to Carriers, July 1965.
Report - Analysis of Eastern Mileage Rates Proposal (Following Suspension of Rates by ICC), Submitted to I.C.C., October 1965.
Report - Position Paper Prepared for J.C.A. of Greater Springfield, Inc. Opposing N.H.RR's application to discontinue Passenger Service, Submitted to I.C.C., January 1966.
Report - Transportation, New England Agriculture and Grain Rates, Annual Meeting Boston Grain and Flour Exchange, February 1966.

Foster, John H.

Article - "The Economics of the Moldboard Plow and Three-tine Cultivator in Two Districts of Uttar Prodesh (India)" in the Indian Journal of Agricultural Economics, Spring 1966.
Bulletin - (With Babeu, Rhodes, and MacConnell) Forest Owner Characteristics and Attitudes in Berkshire County, Massachusetts, Bul. 549, Agricultural Experiment Station, University of Massachusetts, 1966.

Fuller, Earl I.

Mimeo - Description of a Systems Analysis Approach to the Evaluation of Different Hay-Making Systems, (With Philip Cheney) January 1966.
Report - Objectives of a Universal Planning Simulator, December 1965.
Bulletin - An Interregional Quadratic Programming Model for Varying Degrees of Competition (With Yoshihiro Maruyama), August 1965.
Report - Administrator's Gaming Manual for Farm Management (With Donald Ault), August 1965.
Report - Dairy Steers in Massachusetts (With Lawrence D. Rhoades), April 1966.
Report - Feed Crops in Eastern Massachusetts - Their Production and Utilization (With Francis Mentzer), March 1966.

Fuller, Earl I. (continued)

Report - Process Budgets for Massachusetts Forage Crops (With Francis G. Mentzer), March 1966.
Report - Cost and Labor Functions for Four Different Apple Packing Lines (With Peter Wilkin), July 1965.
Article - A Review of Studies Dealing with the Effects of Bulk-Box Handling on Apple Quality (Journal article), December 1965.
Bulletin - The Economics of Handling Apples in Bulk Boxes, December 1965.
Report - Greenhouse Tomatoes in the Pioneer Valley (With Walter Melnick, N. Eugene Engel, and others), January 1966.
Bulletin - A Feeding Guide in the Massachusetts Dairy Feed Program (With Stanley N. Gaunt and Martin E. Weeks), October 1965.

Jarvesoo, Elmar

Article - Agriculture in Estomia, East Europe, A Monthly Review of East European Affairs, Vol. 4, No. 7, pp. 20-22, July 1965.
Article - Commercial Gladiolas - Production and Our Cut Flower Market, The Gladiolas 1966 Yearbook of the New England Gladiolas Society.
Report - Highlights of the Massachusetts Flower Grower Survey in 1964, Special Circular 288, Cooperative Extension Service, University of Massachusetts, on file 1965, 12 pp., 4 figs.
Bulletin - Wholesale Florist Industry in Massachusetts, Bulletin 556, Experiment Station, University of Massachusetts, February 1966, 51 pp., 10 figs.

Jensen, Howard C. and Leed, Theodore W.

Report - An Economic Analysis of Competitive Strategy and Sales in the Supermarket Industry, April 1966.

Russell, Sargent

Bulletin - Development of Milk Supplies in the Ankara, Turkey, Milkshed, Experiment Station, University of Massachusetts, Amherst, Massachusetts, Bulletin 554, July 1965, 40 pp.

Storey, David A.

Bulletin - Louis H. Ruggles and David A. Storey, Marketing Alternatives for Massachusetts Egg Producers, An Analysis of Costs and Returns in Different Wholesale and Jobbing Methods, Cooperative Extension Service and Experiment Station Publication, September 1965, 38 pp.
Bulletin - John W. Denison and David A. Storey, Costs of Brown Egg Production in Massachusetts, An Analysis of Floor and Cage Plants of Different Sizes, Experiment Station Bulletin, April 1966, 88 pp.

Storey, David A. (continued)

Bulletin - Charles Yergatian and David A. Storey, Wholesaler Egg Marketing Costs in Massachusetts, An Analysis of the Effects of Volume and Procurement System, Experiment Station Bulletin, May 1966.

Report - Frederick L. Gaston and David A. Storey. The Market for Fresh Fish that Originate from Boston Fish Pier Landings, in Proceedings of the Conference on New Developments and Research in Fishery Economics, December 1965, Federal Reserve Bank of Boston.

AGRICULTURAL ENGINEERING

Clayton, J. T.

Shear and Flexural Characteristics of Reinforced Concrete Face - Expanded Polystyrene Core Structural Panels. Transactions of the ASAE, Vol. 8, No. 4, 1965, pp. 565-67, 571. (With A. G. Story)

Simulation as a Technique for Investigating the Thermal Exchange of Chickens (abstract). Poultry Science, 40 (1965).

The Growing Paradox in Agricultural Buildings. Farm and Power Equipment, Vol. 40, No. 5, pp. 46-48.

Collins, W. H.

Massachusetts Building Plan Service Contributions: MC-5602, MC-5610, MC-5616.

Extension Service Leaflets and Articles:
PS-7 "16x20-foot Cabin"
PS-8 "Campground Comfort Station"
IL-13 "Tractor and Implement Cleaning" (Emergency Preparedness)
Featheredfax, Summer 1965. Power Failure Alarm Systems.

Fitzgerald, G. A.

Total Utilization in Food Distribution. Bulletin 428 B, Cooperative Extension Service, University of Massachusetts, July 1965, 24 pp.

First ABC System Component--The Retail Shelf. Food Distribution, March 1965, pp. 10-15.

Retailers Need the ABC System. Bulletin 428. Cooperative Extension Service, University of Massachusetts, June 1965, 28 pp.

Fletcher, S. W. (With N. N. Mohsenin, J. R. Cooper, J. R. Hammerle, and C. D. Tukey)

Readiness for Harvest of Apples as Affected by Physical and Mechanical Properties of the Fruit. Experiment Station Bulletin 721, Pennsylvania State University, August 1965.

Fletcher, S. W. (With N. N. Mohsenin, J. R. Hammerle, and L. D. Tukey)

Mechanical Behavior of Selected Fruits and Vegetables Under Fast Rates of Loading. Transactions of the ASAE, Vol. 8, No. 3, pp. 324-26.

Light, R. G.

Design Analysis of Free Stall Housing Systems. Proceedings, Second Section Seminar, CIGRm Cambridge, England, September 1965.
Massachusetts Building Plan Service Contributions: MC-3611, MC-3611A, MC-3622, MC-4606.
Northeast Regional Building Plan Service Contributions: USDA-5968, USDA-5977, USDA-5987.
Popular articles which appeared in the New England Homestead:
"Milking Center Construction," October 1965.
"Milking Parlors with Stall Barns," November 1956.
"Fluid Manure Storage Tanks," March 1966.
"Why Does Condensation Occur?" April 1966.
"Construction of Free Stalls," May 1966.

Whitney, L. F. (With W. P. MacConnell)

A Family of One Man Snow Packers. Ski Area Management, Spring 1966, pp. 18, 19, 60.

Zahradnik, J. W. (With J. S. Perry and T. Y. A. Fang)

Long Term Performance Evaluation of an All-Plywood CA Storage. Transactions of the ASAE, Vol. 8, No. 4, 1965, pp. 443-4.

Technical Papers

Clayton, J. T.

Simulation as a Technique for Investigating the Thermal Exchange of Chickens. 54th Annual Meeting, Poultry Science Association, Athens, Georgia, August 1965.
Operating Characteristics of Two Aerobic--Anaerobic Dairy Manure Treatment Systems. National Symposium on Animal Waste Management, East Lansing, Michigan, May 5-7, 1966. (With D. O. Bridgham)
Trickling Filters: Dairy Manure Stabilization Components. National Symposium on Animal Waste Management, East Lansing, Michigan, May 5-7, 1966. (With N. W. Webster)

Light, R. G.

Regional Ventilation Recommendations for Dairy Structures. Annual Meeting, North Atlantic Region, ASAE, Ithaca, New York, August 1965. (With W. W. Irish and J. A. McCurdy)

Light, R. G. (continued)

Climate and Environmental Control in Free Stall Dairy Housing. Paper No. 65-945, Winter Meeting, ASAE, Chicago, Illinois, December 1965.

Pira, E. S. and L. F. Whitney

Water Distribution from Pressurized Subsurface Irrigation Systems. Annual Meeting, North Atlantic Region, ASAE, Ithaca, New York, August 1965. (With L. F. Michelson and C. M. Vaziri)

Whitney, L. F.

Design Parameters for Fluidized Drying of Alfalfa Leaves. Paper No. 65-925. Winter Meeting, ASAE, Chicago, Illinois, December 1965. (With C. W. Hall)

Zahradnik, J. W.

Thermal Properties of the McIntosh Apple. Paper No. 66-305, Annual Meeting, ASAE, Amherst, Massachusetts, June 1966. (With R. J. Frechette)

Design Parameters for Lime Scrubbers. Paper presented at New York--New England CA Storage Seminar, New Paltz, New York, June 1965. (With S. V. von Rhedey)

A Method for the Removal of Oxygen from CA Storages. Paper presented at New York--New England CA Storage Seminar, New Paltz, New York, June 1965. (With A. K. Kiratsous)

CRANBERRY STATION

Devlin, R. M.

Plant Physiology. 600 pages. (Book in press)

General Biology for College. Manuscript in preparation under Reinhold Contract, MSS due July 1967. (With B. M. Zuckerman, K. Deubert, and C. W. Miller)

Miller, C. W.

Persistence and Accumulation of Dichlobenil in Cranberry Soils. Weeds. (With A. J. Charig) 1966.

Dieldrin Persistence in Cranberry Bogs. Journal of Economic Entomology. 1966.

Norton, J. S.

A Telephone-Frost-Warning Device. Agricultural Engineering Journal. 1966.

Tomlinson, W. E., Jr.

Observations Concerning Mating and Reproductive History of Black-Light Trapped Cranberry Fruitworm, Acrobasis Vaccinii Riley. Journal of Economic Entomology. 1966.

Zuckerman, B. M.

Observations on the Symptoms and Control of Cranberry Red-Gall Disease. Cranberries Magazine. 1965.
Phenylalanine Deaminase in Plant Parasitic Nematodes. Phytopathology. 1965. (With K. Deubert)
Parathion Studies on Bean Grown in Sterile Root Culture. Journal of Economic Entomology. 1966. (With C. W. Miller, R. M. Devlin, W. E. Tomlinson, Jr. and R. L. Norgren)

ENTOMOLOGY AND PLANT PATHOLOGY

Agrios, G. N.

A Severe Non-Parasitic Russeting and Dimpling of Apples in Massachusetts Orchards. Plant Disease Reporter, Vol. 50, No. 3, pp. 151-153, March 1966.
Effect of Extracts from Healthy and Virus-Infected Apple and Pear Tissues on the Growth of Certain Pathogenic Fungi. Phytopathology 56: 176-179.
The Causes and Significance of Dying Apple Tree Branch and Crowns. Fruit Notes. March-April 1966. pp. 7-9.

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Worm-Hole-Free Lumber Salvaged from borer-damaged pine logs. Journal of Forestry, 64(2): 126-128. February 1966.
Autumn Spraying of Decked Pine Sawlogs to Prevent Damage by Wood Boring Insects. Journal of Forestry. In press. (With H. G. Abbott)
Effect of Bidrin on Twig Feeding by Scolytus Multistriatus Marsham. Proceedings of 20th Annual Massachusetts Conference on Dutch Elm Disease. pp. 16-20, February 1966.
Some Facts About Sanitation and Spraying for Dutch Elm Disease Control. Proceedings of New England Agricultural Chemicals Conference, "Focus on Municipal Pest Control Problems." In press.
Cooperative Studies of Elm Bark Beetles in 1966. Massachusetts Tree Wardens, Arborists, and Utilities Conference Proceedings. In press.
Information About Shade Tree Insects. (A series of ten seasonal information releases issued through the Massachusetts Cooperative Extension Service.)

Holmes, F. W.

Virulence in Ceratocystis ulmi. Netherlands Journal of Plant Pathology 71: 97-112, fig. 1. (Phytopathologisch Laboratorium "Willie Commelin Scholten" Mededeeling 52). September 1965.

Bidrin--A Massachusetts Evaluation. Proceedings of the Annual Dutch Elm Disease Conference, Waltham, Massachusetts, 20: 12-15, October 1965.

A Test Clone of ulmus Americana Uniformly Susceptible to Ceratocystis ulmi. Phytopathology 55(12): 1284. December 1965.

Investigation of Tree Diseases in Massachusetts (Dutch Elm Disease, Salt Injury, Maple Decline, Phytopathological Translations). Assembled in Proceedings of the Northeastern Forest Pathology Workshop, 7: 1. (With M. A. McKenzie) February 1966.

Research with Bidrin. Tree Wardens, Arborists and Utilities Conference Proceedings, Amherst, Massachusetts, March 1966.

Salt Damage to Trees and Shrubs. Mass. Agr. Ext. Serv. Emergency Preparedness Committee Leaflet, 26: 1-2.

Resistance of Hemiptelea davidii (ulmaceae) to Ceratocystis ulmi. Phytopathology.

Effects on Street Trees of the Use of Salt as a Snow Control Chemical. New Jersey Federation of Shade Tree Commissions Annual Meeting Proceedings, 39: 38-45. 1965.

Salt Injury to Trees. II. Sodium and Chloride in Roadside Sugar Maples in Massachusetts. Phytopathology. 1965. (With J. H. Baker)

Culture, Diseases, Injuries and Pests of Maples in Shade and Ornamental Plantings. 87 pp., 40 figs. Typewritten text. 1966.

Rohde, R. A.

The Nature of Resistance in Plants to Nematodes. Phytopathology, 55: 1159-1162. 1965.

The Pathogenicity of Pratylenchus penetrans and Tylenchorhynchus claytoni to turfgrasses. Phytopathology, 56. 1966. (With J. Troll)

Shaw, F. R.

A Comparison of Sweeping and Vacuum Collecting Certain Insects Affecting Forage Crops. Journal of Economic Entomology, 59:2: 478-479, April 1966. (With F. R. Holbrook, R. A. Callahan)

The Disappearance of Residues of Bidrin from Alfalfa. Journal of Economic Entomology, 59:2: 487, April 1966. (With R. A. Callahan, F. R. Holbrook)

Preliminary Observations on the Effects of a Naled Fog on Honeybees. Journal of Apicultural Research, December 1965. (With R. L. Armstrong)

Rates of Disappearance of Dimethoate from Ladino Clover and Birdsfoot Trefoil. Journal of Economic Entomology, March 1966. (With W. H. Ziener)

ENVIRONMENTAL SCIENCES

Faddoul, G. P.

A Survey on the Incidence of Salmonellae in Wild Birds - 1. Avian Diseases, Vol. IX, No. 4, November 1965, pp. 529-535. (With G. W. Fellows and J. Baird)

A Five-Year Survey on the Incidence of Salmonellae in Avian Species. Avian Diseases. 1966. (With G. W. Fellows)

Galinat, W. C.

The Development of Glumeless Sweet Corn. Journal. October 1965.

Review of Essays on Crop Plant Evolution. Sir Joseph Hutchindson, Ed., Cambridge University Press, New York, 1965. 204 pp.

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Genetic Correspondence of Tripsacum Chronmosomes to Their Homeologs from Corn. Maize Genetics Cooperative News Letter and Allerton House Maize Genetics Conference, University of Illinois. 1966.

A Planting in Florida of Perennial Relatives of Maize. Maize Genetics Cooperative News Letter and Allerton House Maize Genetics Conference, University of Illinois. 1966.

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COLLEGE OF AGRICULTURE

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AAS:MRE
6/15/66

COLLEGE OF AGRICULTURE

OFFICES AND COMMITTEE MEMBERSHIP

HELD IN PROFESSIONAL SOCIETIES

AGRICULTURAL ENGINEERING

Clayton, J. T.

Meetings Committee (National ASAE) Vice Chairman
Building Construction Standards Committee (National ASAE)
Animal Shelter Ventilation Committee (National ASAE)
Executive Committee (Connecticut Valley Chapter, ASAE)

Collins, W. H.

Nuclear Radiation Protection Committee (National ASAE)

Fletcher, S. W.

Vice Chairman, Connecticut Valley Chapter, ASAE
Secretary-Treasurer, Massachusetts Chapter, Phi Tau Sigma
Food Engineering Committee (National ASAE)

Johnson, C. A.

Chairman, Milk Handling Equipment Committee (National ASAE)
Rural Waste Disposal Committee (National ASAE)

Johnson, E. A.

Instrumentation Committee (National ASAE)

Light, R. G.

Chairman, Northeast Farm Buildings Plan Exchange Committee
Water Treatment and Use Committee (National ASAE)
Northeast Agricultural Engineers Committee on Standards for Milk Sanitarians

Zahradnik, J. W.

Secretary, Food Engineering Committee (National ASAE)

ENTOMOLOGY AND PLANT PATHOLOGY

Becker, W. B.

Vice Chairman, Northeastern Forest Pest Council

Holmes, F. W.

Member of Committee on Regulatory Work and Foreign Plant Diseases, American Phytopathological Society
Chairman, Northeastern Forest Pathology Workshop (International)

Lilly, J. H.

President, University of Massachusetts Chapter of Society of Sigma Xi
Secretary, University of Massachusetts Chapter of Phi Kappa Phi
Member, Committee on Common Names of Entomological Society of America
Faculty Fellow, Eugene Field House, Orchard Hill Complex

Wave, H. E.

Member, Auditing Committee, Eastern Branch, Entomological Society of America

Wheeler, E. H.

Member, Insecticide Terminology Committee, Entomological Society of America

ENVIRONMENTAL SCIENCES

Faddoul, G. P.

Member, Advisory Committee to Director, Massachusetts Division of Livestock Disease Control
Member, Poultry Health Committee, Massachusetts Poultry Association
Member, Program Committee, Massachusetts Veterinarians Association
Participant, National Salmonella Surveillance Unit, Public Health Service

Galinat, W. C.

Editorial Board, Economic Botany
Secretary, New England Botanical Club, Inc.

Green, J. H.

Education Committee, Society of Industrial Microbiology

Litsky, W.

Editorial Board, Applied Microbiology
Editorial Board, Standard Methods for the Examination of Water
Education Committee, Society of Industrial Microbiology
Publication Committee, Society of Industrial Microbiology
Applied Microbiology, American Society of Microbiology
Microbial Contamination of Surfaces, American Public Health Association

Naegele, J. A.

Program Committee, Entomological Society of America, Eastern Branch

Snow, J. A.

Committee Member, Epidemiology and Meteorology, American Phytopathological Society

FEED, SEED, FERTILIZER AND DAIRY LAWS

Eiben, C. H.

Member, Merion Kentucky Bluegrass Purity Committee, Association of Official Seed Analysts

Gersten, B.

Associate Referee - to study development of methods for the determination of copper and sodium in fertilizers, Association of Official Analytical Chemists

Kuzmeski, J. W.

Chairman, Collaborative Check Sample Committee, and Investigator, Non-Protein Nitrogen Products, Association of American Feed Control Officials, Inc.
Member, Guarantees and Tolerances Committee, and Investigator, Nitrogen Products, Association of American Fertilizer Control Officials, Inc.

Rice, W. N.

Chairman of Referee Work, Region 3; member of Noxious Weed Seed, Seed Count, and Meeting Place Committees, Association of Official Seed Analysts

Smith, C. T.

President, ex officio and Chairman, Methods Committee, American Association of Feed Microscopists

FOOD SCIENCE AND TECHNOLOGY

Eshbach, C. E.

Trustee, New England Economic Education Council

Esselen, W. B.

Member of Council and the Council Policy Committee, the World Food Program Committee and Chairman, Scientific Lectureship Committee of Institute of Food Technologists
National Councilor, University of Massachusetts Chapter of Phi Tau Sigma

Francis, F. J.

Member, Editorial Committee, American Society of Horticultural Science
Member, Babcock Horticultural Award Committee, Institute of Food Technologists

Hayes, K. M.

Treasurer, Northeast Section, Institute of Food Technologists
Member, ASHRAE Technical Committee
Frozen Foods Consultant, National Frozen Foods Association

Hunting, W. M.

Appointed by Governor John A. Volpe to Advisory Board, Greenfield Community College

Lundberg, D. E.

Member, Board of Directors, Council on Hotel, Restaurant and Institutional Education

Potter, F. E.

Director, New England Group, National Ice Cream Retailers' Association

Sawyer, F. M.

Member, Committee on Quality Control of Food Products, Institute of Food Technologists

FORESTRY AND WILDLIFE MANAGEMENT

Abbott, H. G.

Secretary-Treasurer, New England Section, Society of American Foresters

Bond, R. S.

Executive Council, New England Section, Society of American Foresters
Correspondent (News Organ), New England Section, Society of American Foresters

Brander, R. B.

Co-authoring a chapter--Committee on Technical Manual, Northeast Section, Wildlife Society

Carlozzi, C. A.

Member, Board of Directors, Caribbean Conservation Association

Cole, C. F.

Chairman, Audit Committee, Northeast Section, American Fisheries Society

Greeley, F.

Chairman, Committee on By-Laws Revision, Northeast Section, Wildlife Society

Mader, D. L.

Speaker, Green Mountain Chapter, New England Section, Society of American Foresters
Chairman, Forest Soils Work Group, Northeast Soils Research Committee
Member, Nominating Committee, Forest and Range Soils Division, Soil Science Society of America

McCann, J. A.

Committee on Student Memberships, American Fisheries Society
Chairman, Membership Committee, Northeast Section, American Fisheries Society

Noyes, J. H.

Chairman, New England Section, Society of American Foresters
Member, Technical Committee, American Pulpwood Association

Reed, R. J.

Secretary-Treasurer, Northeast Section, American Fisheries Society

Rhodes, A. D.

Chairman, Council of Forestry School Executives

Scheffey, A. J. W.

Member, Natural Resources Committee, New England Council
Secretary, Northeastern Public Affairs Committee, Cooperative Extension
Member, Advisory Committee, Higher Education Facilities Commission
Member, Massachusetts Outdoor Recreation Council

Sheldon, W. G.

Executive Committee, Northeast Section, Wildlife Society

4-H CLUB

Metcalfe, W. W.

Vice President, Massachusetts Division, Adult Education Association, United States of America

VETERINARY AND ANIMAL SCIENCES

Foley, R. C.

President, Massachusetts Chapter of Phi Kappa Phi

Gaunt, S. N.

Chairman, Eastern Region, American Dairy Science Association

Sevoian, M.

Member, National Committee on Avian Leucosis, American Veterinary Medical Association

Snoeyenbos, G. H.

Secretary-Treasurer, American Association of Avian Pathologists
Business Manager, Avian Diseases (Quarterly Journal), American Association of Avian Pathologists

Stern, D. N.

Northeastern Director, American Association of Extension Veterinarians

COLLEGE OF AGRICULTURE

FACULTY AWARDS, CITATIONS, AND

PROFESSIONAL RECOGNITION

DEPARTMENT OF ENVIRONMENTAL SCIENCES

George P. Faddoul

- Bronze Plaque presented by Massachusetts Poultrymen's Association for outstanding service to the Massachusetts poultry industry.

- Bronze Plaque presented by the Massachusetts Farm Bureau Federation in recognition of his outstanding contributions to the poultry industry.

DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY

Frederick J. Francis

- Invited to serve as an Institute of Food Technologists National Scientific Lecturer during the coming year.

William B. Esselen
Irving S. Fagerson
Charles R. Stumbo

- Awarded travel grants by the Institute of Food Technologists (funded by NIH) to attend and participate in the Second International Congress of Food Science and Technology at Warsaw, Poland, August 22-27, 1966. Dr. Stumbo has also been invited to present a paper at the Congress.

DEPARTMENT OF PLANT AND SOIL SCIENCES

John H. Baker

- Elected a Fellow of the American Association for the Advancement of Science in recognition of his scientific accomplishments.

- Consultant to U. S. Geological Survey on contamination of water with fission products produced by nuclear explositions.

William G. Colby

- Visiting Professor, University of Hokkaido, and University of Obihiro, Hokkaido, Japan, as a recipient of an award under the Fulbright-Hays Act.

Mack Drake

- Exchange Professor to Hokkaido University, Sapporo, Japan, June-August 1965.

DEPARTMENT OF PLANT AND SOIL SCIENCES (continued)

Mack Drake

- Consulting Editor, Soil Science (Journal).

- Consulting Editor, Agronomy Journal.

Joseph Troll

- Appointed a member of the United States Golf Association Green Section.

- Appointed a member of the Golf Course Superintendents' Association of New England.

DEPARTMENT OF VETERINARY AND ANIMAL SCIENCES

John W. Denison

- Received the "Outstanding Teacher of the Year" award by the Stockbridge School of Agriculture.

Stanley N. Gaunt

- Received a travel grant from the Research Council, University of Massachusetts, to present a paper at the International Dairy Congress, Munich, Germany.

Robert M. Grover

- Recipient of Epsilon Sigma Phi Extension Award, December 1965.

Martin Sevoian

- Received a travel grant from World's Poultry Congress, Kiev, U.S.S.R.

Douglas N. Stern

- Recipient of Epsilon Sigma Phi Extension Award, December 1965.

COLLEGE OF AGRICULTURE

FACULTY PARTICIPATION IN

PROFESSIONAL MEETINGS

AGRICULTURAL AND FOOD ECONOMICS

Storey, D. A.

Presented a paper at the Conference on New Developments in Fisheries Economics, Boston, Massachusetts, December 1965.

AGRICULTURAL ENGINEERING

Clayton, J. T.

Presented an invited paper (Simulation as a Technique for Investigating the Thermal Exchange of Chickens) at the 54th Annual Meeting of the Poultry Science Association, University of Georgia, Athens, Georgia, August 1965.
Presented two invited papers at the National Symposium on Animal Waste Management, Michigan State University, East Lansing, Michigan, May 1966. (With graduate students, N. W. Webster and D. O. Bridgham)
Presided at a half-day session (Professional Practice in Farmstead Engineering) of the Winter Meeting, American Society of Agricultural Engineers, Chicago, Illinois, December 1965.

Fitzgerald, G. F.

Presented an invited paper (The ABC System of Grocery Procurement) and demonstrated the U-Mass. developed self-dressing display rack at the Food Business Institutes 9th Annual Conference on Food Distribution, University of Delaware, Newark, Delaware, April 1966.

Light, R. G.

Presented a paper (Climate and Environmental Control in Free Stall Dairy Housing) at the Winter Meeting, American Society of Agricultural Engineers, Chicago, Illinois, December 1965.
Presented a paper (Regional Ventilation Recommendations for Dairy Structures) at the Annual Meeting, North Atlantic Section, American Society of Agricultural Engineers, Cornell University, Ithaca, New York, August 1965.
Authored a paper (Design Analysis of Free Stall Housing Systems) included in the Proceedings, Second Section Seminar, CIGR, Cambridge, England, September 1965.

Whitney, L. F. and E. S. Pira

Presented a paper (Water Distribution from Pressurized Subsurface Irrigation Systems) at the Annual Meeting, North Atlantic Section, American Society of Agricultural Engineers, Cornell University, August 1965. (With L. F. Michelson and C. M. Vaziri)

Whitney, L. F.

Presented a paper (Design Parameters for Fluidized Drying of Alfalfa Leaves) at the Winter Meeting, American Society of Agricultural Engineers, Chicago, Illinois, December 1965. (With C. W. Hall)

CRANBERRY STATION

Zuckerman, B. M.

Served as scientific specialist, United States Department of State, Cultural Exchange Program, Warsaw, Poland, September 1965.
Attended VII International Nematology Symposium, Antibes, France, September 1965.
Served as External Examiner in Zoology, University of Jodhpur, India. Examined one Ph.D. thesis in 1965.

ENTOMOLOGY AND PLANT PATHOLOGY

Holmes, F. W.

Served as host, Northeastern Forest Pathology Workshop, University of Massachusetts, Amherst, Massachusetts.
Presented paper at Northeastern Division Meeting of American Phytopathological Society.

ENVIRONMENTAL SCIENCES

Butterfield, N. W.

Participant, American Society Horticulture Science, Branch Meeting.

Faddoul, G. P.

Participant, New England Turkey Producers' Association.

Fellows, G. W.

Participant, Northeastern Conference on Avian Diseases, University of Delaware, Newark, Delaware.

Fordham, H. C.

Member, Governor John A. Volpe's Committee on Natural Beauty.

Galinat, W. C.

Participant, Maize Genetics Conference, University of Illinois, Urbana, Illinois.

Green, J. H.

Participant, American Society of Microbiology, Annual Meeting.

Gunnar, H. B.

Invited participant, Ninth International Congress of Microbiology, Moscow, Russia (U.S.S.R.)
Participant, Symposium on Soil Bacteria, University of Liverpool, England.
Participant, National Meeting, American Society of Microbiology.

Litsky, W.

Participant, Advisory Board, Microbiology of Foods, United States Army Natick Laboratories.
Participant, Research Conference, Marine Environment and Shellfish Sanitation Problems, Narraganset, Rhode Island.

McEnroe, W. D.

Participant, Entomological Society of America, Eastern Branch Meetings.

Naegele, J. A.

Participant, Entomological Society of America, Eastern Branch Meetings.
Participant, Symposium on Environmental Health, Tufts University, Medford, Massachusetts.

Rosenau, W. A.

Participant, American Society of Horticultural Science, Regional Meetings.
Participant, Air Pollution Control Association Meetings, Windsor, Connecticut.
Participant, Symposium on Analytical Chemistry, New York, New York.

FOOD SCIENCE AND TECHNOLOGY

Eshbach, C. E.

Conference Speaker, Annual Conference, National Association of Product Managers, Boston, Massachusetts, 1966.

Fagerson, I. S.

Panel Member, Symposium in Flavor, Massachusetts Institute of Technology, Cambridge, Massachusetts, November 1965.

Hultin, H. O.

Presented research paper at Annual Meeting, Institute of Food Technologists, Portland, Oregon, May 1966.

Sawyer, F. M.

Presented research paper at Annual Meeting, Institute of Food Technologists, Portland, Oregon, May 1966.

Stumbo, C. R.

Presented research paper at Annual Meeting, Institute of Food Technologists, Portland, Oregon, May 1966.

FORESTRY AND WILDLIFE MANAGEMENT

Bond, R. S.

Presented summary of curriculum study at meeting of Forestry Economics Educators, Society of American Foresters.
Presented paper at New England Agricultural Economics Council.

Carlozzi, C. A.

Presented principal paper at Caribbean Conservation Conference, held in the Caribbean.

Cole, C. F.

Panel Member, American Fisheries Society, Northeast Section.
Statement presented at Conference on Exploration of the Atlantic Shelf.
Member, Advisory Committee, American Society of Ichthyologists and Herpitologists.

Gatslick, H. B.

Co-chairman, Joint Meeting, Forest Products Research Society and New England Kiln Drying Association

Hoadley, R. B.

Technical Session Chairman, Forest Products Research Society and New England Kiln Drying Association.

Mader, D. L.

Paper presented at Forest Soils Workshop, Society of American Foresters.
Paper presented at Municipal Watershed Management Symposium, University of Massachusetts, Amherst, Massachusetts.

McCann, J. A.

Program Chairman, American Fisheries Society, Northeast Section.

Scheffey, A. J. W.

Paper, Conference on Urban Planning for Environmental Health.
Paper, Public Policy Seminar, Northeastern Public Affairs Committee, New York, New York.
Paper, Symposium on the New Conservation, Clark University, Worcester, Massachusetts.
Panel Member, White House Conference on International Cooperation.
Panel Member, Conference on Environmental Resources, National Sanitation Foundation, Ann Arbor, Michigan.
Panel Member, Symposium on Environmental Quality, Resources for the Future, Washington, D. C.
Paper, Society of American Foresters, New England Section.
Participant, Massachusetts Conference on Natural Beauty.
Paper, New Jersey Governor's Conference on Natural Beauty.
Keynote Speaker, Vermont-New Hampshire Workshop on Natural Beauty.
Lectures delivered at Harvard University; School of Fine Arts, Dartmouth College; University of New Hampshire; Alumni College, University of Massachusetts.

VETERINARY AND ANIMAL SCIENCES

Black, D. L.

Presented paper, Federation of American Societies for Experimental Biology, Atlantic City, New Jersey, April 1966.

Denison, J. W.

Presented an invitational paper titled, "Post High School Education at the Associate Degree Level," - Program on Undergraduate Education in Poultry Science sponsored by the Poultry Science Association and the Committee on Educational Policy in Agriculture of the National Academy of Science, National Research Council, Athens, Georgia, August 1965.

Fenner, H.

Presented paper on "Silage Preservation", American Dairy Science Association, College Park, Maryland, July 1965.

Foley, R. C.

Presented invitational paper titled, "Education in Dairy Science at the Associate Degree Level," - Conference on Undergraduate Education in Dairy Science sponsored by the American Dairy Science Association and the Committee on Education Policy in Agriculture of the National Academy of Science, National Research Council, Lincoln, Nebraska, August 1965.

Gaunt, S. N.

Presented paper on "Selection Response in Dairy Cattle," - American Dairy Science Association, Eastern Section Meeting, College Park, Maryland, August 1965.

Harris, W. K.

Chairman, Committee on Laboratory Procedures, Northeastern Mastitis Conference, Philadelphia, Pennsylvania

Mellen, W. J.

Chairman, Physiology Section, Poultry Science Association, Athens, Georgia, 1965.
Participant, Conference on Undergraduate Education in Animal Sciences, National Research Council, Washington, D. C., May 1966.

Olesiuk, Olga M.

Presented two papers at Northeastern Conference on Avian Diseases, Newark, Delaware, June 1966.

Sevoian, M.

Presented paper titled, "On the Etiology of Avian Lymphomatosis," International Conference on Comparative Leukemias, Stockholm, Sweden, September 1965.

Smith, R. E.

Participant, People-to-People Travel Program to Soviet Union and Western Europe, United States Cultural Exchange Program, September 1965.
Participant, National Leptospirosis Conference, Chicago, Illinois, December 1965.

Smyser, C. F.

Participant, Northeastern Conference on Avian Diseases, Newark, Delaware, June 1966.

Snoeyenbos, G. H.

Discussant, Symposium on Avian Pasteurellosis, United States Fish and Wildlife Service, Boston, Massachusetts, January 1966.

COLLEGE OF AGRICULTURE

RESEARCH PROJECTS

1965-66

THE MASSACHUSETTS EXPERIMENT STATION

The purpose of the Massachusetts Experiment Station is to conduct systematic scientific investigations of problems relating to the agricultural industry of the state in its broadest aspects. These investigations have as their objective - to discover the fundamental principles underlying the behavior of economic plants and animals, to determine the economic and biological factors relating to the constructive use of our renewable natural resources, and to develop better methods of utilizing the products of these resources for the improvement of the economy of the Commonwealth.

The programs of the Experiment Station consist of the following areas of work.

Conservation, Development and Use of Soil, Water, Forest and Related Resources

Resource description and inventory.
Resource conservation.
Resource development and management.
Evaluation of alternative uses and methods of use.

Protection of Man, Plants, and Animals from Losses, Damage, or Discomfort Caused by --

Insects.
Diseases, parasites, and nematodes.
Weeds.
Fire and other hazards.

Efficient Production and Quality Improvement

Biology of plants and animals.
Improving biological efficiency of plants and animals.
Increasing consumer acceptability of farm and forest products.
Mechanization and improvement of physical efficiency.
Management of labor, capital, and other inputs to maximize income.

Product Development and Processing

Chemical and physical properties of food products.
Developing new and improved food products and processes.
Chemical and physical properties of non-food products.
Developing new and improved non-food products and processes.

Efficient Marketing, Including Pricing and Quality

Identification, measurement and maintenance of quality.
Improving economic and physical efficiency in marketing, including analysis of market structure and functions.

Analysis of supply, demand and price, including interregional competition.
Developing domestic markets, including consumer preference and behavior.
Foreign trade, market development, and competition.

Development of Human Resources and of Economies of Communities and Areas

Description, inventory, and trends.
Economic development and adjustment.
Improvement of social well-being, including social services and facilities and adjustment to social and economic changes.
Evaluation of public programs, policies and services.

DEPARTMENT OF AGRICULTURAL AND FOOD ECONOMICS

E. W. Bell, Acting Head

Department Research Program

Research by the Department of Agricultural and Food Economics has both basic and applied aspects. The studies are related to the interests of a well-trained and developing staff plus the use of graduate assistants which has increased the mileage of this program under the competent direction of staff members of the department under whom these graduate assistants worked closely. The areas of emphasis include: resource economics, market structure, market management and efficiency studies, management economics in food production, land use and resource utilization, retail distribution economics of food handling firms, and price analyses of market structures in food distribution and marketing processes.

Marketing

Marketing of Eggs in Massachusetts

D. A. Storey

Three coordinated studies were completed using the economic-engineering research technique. Production costs of commercial egg production were synthesized for floor and cage plants of different sizes, marketing costs were synthesized for four marketing systems, and wholesale marketing costs were synthesized for three marketing systems. The results of these studies gave a useful basis for management decisions, and also gave leads to conclusions concerning the future structure of the Massachusetts commercial egg industry. A further study is underway on the feasibility of various types of marketing contracts. Data are currently being collected to identify the characteristics of different egg marketing systems in Massachusetts.

Marketing of Marine Fish

D. A. Storey

A research grant from the Bureau of Commercial Fisheries, U. S. Department of the Interior, made possible a study of the distribution of fish landed at the Boston Fish Pier. Marketing channels, geographical patterns of distribution, and seasonal variations were identified for the major species and types.

A second phase of this study, which will be a part of a regional research effort, will involve the study making a cross-section analysis of fish consumers in selected market areas.

Econometric Measurement to Sales Forecasting in Food Retailing Firms

T. W. Leed

Supermarket retailing of food today relies on short-time projection of store sales from day to day and week to week. This was an original effort to develop methodology that could be practical and incorporated into the food marketing firms management routine. This study was realized and accomplished with the aid of a graduate assistant and the results will be used by executives and management personnel in food retailing firms as a guide in their decision making.

The Queueing Theory to Labor Utilization in Retail Supermarket Food Stores

T. W. Leed

In making this study, the Labor Relations and Research Center, as well as the Department of Industrial Engineering, collaborated in this undertaking. The results here, too, will be found useful by executive and management personnel in developing systems that will be efficient to store operations and understanding of their labor requirements.

Transportation

A. A. Brown

The largest single item of expense incurred by Massachusetts livestock and poultry farmers in both an absolute and a relative sense is for purchased feed. A substantial part of this cost has been and continues to be the freight charges for moving the ingredients or the feed to mills and farms in this area from the surplus grain producing areas of the Midwest.

Research has been directed toward a more rational freight rate structure in this rail movement. In July of 1964 a major innovation occurred with the introduction of "distance" or "mileage rate" on corn. Although of considerable significance so far as Massachusetts is concerned, this change was but a first step: a first approximation.

Major attention continues to be given to a general revision of the Eastern grain freight rate structure. The availability of corn rate introduced an element of realism into a general analysis of rate alternatives with a view toward the extension of "mileage" rates to all feed grain ingredients generally used in the manufacturing of livestock feed used by farmers in this area. This will be of particular economic benefit to dairymen as well as poultrymen, and give them opportunity to maintain a competitive position of economic production as well as the marketing of their farm products.

Resource Productivity in Greenhouse Carnation Production

E. Jarvesoo

This was a study in the production and marketing of carnations produced on ranges in Massachusetts. It studied the production functions as related to size of business operation, capital input costs, labor efficiencies and management methods. The results of this study will be of prime interest to the firms producing and marketing carnations to retail florists and others, by providing economic analysis to develop operational efficiencies. Research in this area is continuing by taking up further study of the cost function of the economic production of carnations in Massachusetts.

Cost of Producing Gladioli in Massachusetts

E. Jarvesoo

Based on typical performance rates of glad growers in the state, costs of growing is about 52 cents per dozen. Harvesting and marketing will add about 11 cents a dozen to a total of 63 cents per dozen. Certain overhead costs may increase this about to another 6-9 cents a dozen. The greatest weakness of the local gladiolus production is the low yield obtained per acre which tends to raise the cost of production per dozen. Small scale marketing is also much more costly than if it was conducted on a more extensive scale.

Flower Grower Survey of Massachusetts

E. Jarvesoo

At the request of the Massachusetts Flower Association a survey by mail was made of the economic structure and characteristics of the industry. Tabulations of this survey were made and the statistical results were compiled and published as material for the information of flower growers in Massachusetts.

The Market for Processed Fruits and Vegetables in Private Hospitals

R. A. Fitzpatrick

Hospitals are one of the large users of processed fruits and vegetables in the institutional market. In order to obtain a better understanding of the problems of this particular demand sector, this study was undertaken working with suppliers and procurement personnel of the institution.

Hospitals have a high market potential for these products and one that is growing. Annual needs in Massachusetts are found to approximate about $5.5 million. It was further found by the study that tomatoes, beans, peas, and beets ranked highest in utilization for the vegetables. Peaches, pears, and applesauce were the ranking processed fruit products. About one-half of the vegetables they used were frozen and the other half canned. With respect to fruit, about two-thirds were canned and one-fifth were frozen products.

Analysis was made of procurement practices and inventory control as well as pricing procedures and quality control of the products used.

Findings will give a basis for corrective action of problems in this area and lead to increased market efficiency, as well as the betterment of management and policy practices of hospitals in the procurement of their needs of processed fruits and vegetables.

Labor and Capital Costs Relative to Competitive Prices of Milk in Regulated Markets

S. Russell

Regulation is an accepted part of milk marketing as it affects both quality and the pricing of milk by marketing firms. When the price of the product to the consumer is regulated, it becomes difficult for the more efficient firms to increase volume of business by charging lower prices than their competitors. Studies are being made to explore the possibilities of methodically directing and governing service prices, such as labor and capital, rather than retail prices.

Farm Management and Production Economics

Feed Handling on Dairy Farms

E. I. Fuller

Statistical methodology has been worked out for use in the Massachusetts dairy area. Studies that have been testing the methodologies of forage handling suggest little potential economic gain to improving hay and grain handling. However, silage appears to hold more promise. For example, the "chuck-wagon" and other systems of feeding appear hard to testify if direct tractor scoop procedures are feasible.

Dairy Supply Responses

E. I. Fuller

The final quasi-normative linear programming of this study is underway. Results indicate a substantial potential increase in response

at present or slightly higher prices. A companion totality predictive study using Markov chains and simulation predicts 586 million pounds production from 50,000 cows in 1970. (A sample result somewhat out of context.)

Bulk Handling of Apples

E. I. Fuller

Results indicate that at equal bruising rates the break-even point for justifying a change-over to bulk boxes in the orchards of Massachusetts is less than 20,000 bushels. The bruising considerations are not totally clear. Very little additional bruising in handling is needed to nullify any advantages that could be realized from bulk boxes.

Simulation of Farm Growth

E. I. Fuller

A gaming device developed by this research, when used as a simulator on a case farm with a mixed crop and dairy business, suggests poor potentials for economic growth even with good crop yields unless production per cow can go from the observed 10,000 pounds to 12,000 annually.

Simulation of Risk and Uncertainty

E. I. Fuller

A "universal" planning simulator has been written. It is now under rigid research test. Research testing has also been given a forage harvest simulator, used to test alternative systems and strategy. It suggests less penalty to rain damage than what farmers commonly do believe. If capacity to harvest is limited relative to acreage, it suggests practically ignoring the current weather forecasts either via radio, television, or daily newspaper.

Resource Economics

Urban Growth and Agricultural Change in Massachusetts and New England

D. Lee

Objectives of the studies in urban growth and agricultural change in Massachusetts and New England are: (1) to determine the quantitative changes in production of the principal agricultural commodities in each New England State from 1840-1960; (2) to determine any differences in the pattern of change in agricultural production between the predominantly urban and predominantly rural areas;

and (3) to determine the role of urban growth in the process of agricultural change in Massachusetts. The method being used is to compare these changes in agriculture in areas strongly influenced by urbanization with changes in agriculture in areas relatively free of urbanization but otherwise similar. The census figures are being used as the source of data for each principal agricultural commodity for each New England State and for all counties in Southern New England for the period of years 1840-1960. This study will provide valuable contributions to considerations being given to the current rapid changes in land use and the development of suburban and expansion of rural communities.

The Land Use Changes in the Connecticut Valley Region of Massachusetts

J. W. Callahan

Two towns and one city in Hampden County and three towns in Hampshire County are being studied in this project. Particular attention was given to changing agricultural land use, population growth, and non-agricultural land use changes, between the years 1940 and 1965. The number of dairy animals and poultry numbers increased during the period, while certain crops, notably binder tobacco and apples, experienced acreage declines.

Diversion of 3660 acres of cropland from agriculture to non-agricultural uses represented 9% of the total improved farm land available in 1940.

Projection of population and dwelling house construction for the year 2000 A.D.indicates a possible need for over 29,000 additional houses, possibly requiring an additional 13,000 acres of land.

Approximately 28,000 acres of open cropland are available in the six communities at the present time. Part of the space for non-agricultural needs of the future is certain to come from the present cropland in this area under study.

DEPARTMENT OF AGRICULTURAL ENGINEERING

J. T. Clayton, Head

The significance of the research in the Department of Agricultural Engineering continues to increase. Seven of a total of 11 faculty members are actively engaged in formal research. Four staff members have primary responsibilities in research and the guidance of 17 graduate students (15 M.S., 2 Ph.D.). Areas of research emphasis include Agricultural Engineering, Biological Environment Engineering, and Biological Process Engineering.

Agricultural Engineering

Engineering Properties of Reinforced Concrete Face - Expanded Plastic Core Structural Panels

J. T. Clayton

The effect of orientation during fabrication on the inherent bond developed between expanded polystyrene and Portland cement concrete was further investigated. Previous test specimens had been fabricated by the following procedure: (1) a "lower" concrete face was placed in a form and vibrated; (2) a core was placed on top of this facing; and (3) an "upper" concrete face was placed on top of the core and consolidated by vibration. Experimental results reported in 1964 showed that for panels fabricated in this manner failure always occurred at the interface between the lower face and the core (i.e., at the lower bond), and that the over-all strength of the sandwich was controlled by the shear strength of the lower bond. Based on this information another factorial experiment which included orientation as a variabld was carried out. In addition to the fabrication technique already described, test specimens were fabricated by the following method: (1) a layer of concrete placed over a horizontal core was consolidated by vibration; (2) after a curing period of 96 hours, to avoid revibration effects, the half-completed sandwich was inverted; and (3) the second facing was applied in the same manner as the first. This procedure gave a sandwich with two upper faces.

A statistical analysis of the experimental data indicated that the shear strength of the specimens fabricated using the second technique was significantly greater (at the 99.9% confidence level) than specimens fabricated by the first technique. Over-all average strength was increased by approximately 44% by using the second fabrication technique. Rapid yielding of the core material at loads near the ultimate confirmed that, for specimens fabricated by the revised technique, failure was due to shearing within the core and was not due to failure of the interfacial bond.

Mass Physical Properties of Haylage

R. W. Kleis

Tensile strength studies completed a series of 648 separate tests covering a range of moisture contents and densities for both grasses and alfalfa. Moisture content had no significant bearing upon strength except as it affected dry matter density. Dry matter density had a direct and linear relationship to tensile strength. Over a density range of 6 to 17 pounds per cubic foot, the tensile strength ranged from one to three psi for grasses, and from two to five psi for alfalfa. Similar investigations of lateral shear strength also demonstrated independence of moisture content and highly significant linear correlation to dry matter density. Over the same density range, the lateral shear strengths ranged from 75 to 120 psi for alfalfa and 60 to 120 psi for grasses. Unstructured preliminary studies of compressive behavior of haylage indicated that a vacuum of about 13 psi applied to a storage unit could cause densities of up to 45 lbs./ft.^{3}, or about three times normal storage density.

The completion of haylage strength studies provides for more precise and objective design of equipment and procedures. The potential benefits of increased storage density in terms of efficiency and economy are apparent.

Improvement of Efficiency in Harvesting Apples

L. F. Whitney

The objectives of the newly initiated project are: (a) to develop harvesting aids for positioning the worker in relation to the tree and for transferring the fruit from the hand picker to the transport container; (b) to develop mechanical harvesting equipment; and (c) to adapt and develop trees for more efficient harvesting. Present methods and equipment will be evaluated as to their application to the specialized problems associated with the tender fresh-market varieties grown in New England by inspection on-the-site at various locations in the country, and by procuring and field testing such equipment and machines as appear most promising. Improved means of positioning the worker and conveying fruit to collection boxes in the field will be developed. Emphasis will be placed on improving the efficiency of workers in standard-sized trees.

Subsurface Irrigation of Turf Areas - Nozzle Design and Spacing

L. F. Whitney

Investigation of water movement in soil by sub-surface irrigation has continued in two areas. The effect of the interface of a constructed soil profile comprised of a fine textured top soil and a coarse sub-soil has been found to be a definite deterent to the

downward movement of water. The placement of the pressurized orifice, the combination of soil particle sizes and the lateral movement of water has been investigated. With an orifice placement 6.5 inches above the interface of a 10-inch layer of silt-loam over a 4-inch layer of coarse sand sub-soil, the greatest lateral distance of two feet was found. A substantial decrease in distance travelled as the particle size in the top layer increased was observed.

Nozzle design and spacing studies have been initiated with preliminary results indicating that porous media do not appear to possess long-range, trouble-free characteristics. A labyrinth nozzle appears to be most promising in providing a clog-free, root-resistant design. Portable experimental apparatus is being constructed for tests under controlled conditions in the laboratory or the field which will permit detailed study of the effects of nozzle spacing.

These results will contribute to the over-all design of an irrigation system which should provide increased water usage efficiency for turf areas. Also, a continuous irrigation procedure, free from surface equipment, would permit continuous usage of the area while irrigation is in progress.

Biological Environment Engineering

Environmental Requirements of Chickens

J. T. Clayton

An automatic differential temperature control system has been developed for use with the simulated chicken previously developed. The control system is based on previously determined relationships between internal temperature and environmental temperature (within the range 45-95°F.). Due to physiological stimuli (presumably) the plot of internal temperature versus environmental temperature has several inflection points. It is possible, however, to eliminate all but one inflection point by using temperature difference as the control reference sequence. Control is accomplished by putting the signal from an environmental temperature sensor into an electronic balancing unit which drives a properly formed cam. The cam, through a follower, positions a linear potentiometer in an electric circuit which controls the heat input to the simulated chicken.

A facility for studying convection effects on the surface temperature distributions of both live and simulated chickens and the thermal exchange rates of simulated chickens has been designed and built. A recirculating type of wind tunnel provides an essentially uniform velocity across a three-foot square test section. Test velocities can be varied from zero to approximately 20 miles per hour in nine discrete steps. Environmental temperature can be controlled at any level greater than 40°F.

Chemical and Non-Chemical Measures for the Protection of Perishable Food Commodities in Marketing Channels

E. A. Johnson

Studies were made of the physical response of Periplaneta Americana, obtained from the Wisconsin Alumni, to electro-magnetic radiation from a number of commercial lamps. Preliminary tests of ten different 15-watt florescent and and incandescent lamps were run. Four of these lamps were selected for more comprehensive studies. The ones selected were Germicidal, Coll Green, and Pink (General Electric names) florescent, and inside frosted incandescent. The Germicidal lamp was found the most effective in repelling the insects. None of the lamps was attractive to them. The tests indicate a definite difference in response to different radiations, and it seems possible that a relatively simple radiation source may be found which can be used to repel Periplaneta Americana from food storage areas.

Closed Systems for Animal Sewage Treatment

J. T. Clayton

Two biological treatment systems (aerobic - anaerobic digestion) have been developed. The purpose of each was to reduce the pollution potential of the system effluent to a level which would permit its reuse as a flushing agent or discharge into a watercourse. Pilot test systems were sized for processing the waste (manure, urine, bedding) of a 1,000 pound cow unit over a six-month operating period. Preliminary bench tests (1/100 pilot system capacity) were conducted to help determine dosage rates and operating procedures. Standard analysis methods were used to evaluate the performance of the two systems. Determinations included: total solids, volatile solids, BOD, volatile acid, pH, and settleability.

After the bench tests, pilot systems were operated for five months. At the end of this period one of the systems was operating satisfactorily. The other had practically ceased to function as the dissolved oxygen content of the primary aeration tank had dropped to less than one ppm, the suspended solids content was very high (1.7%), and the settleable solids at 30 minutes were 90% of the total volume.

Trickling Filters - Dairy Manure Stabilization Components

J. T. Clayton

The performances of three idential trickling filters have been studied under laboratory conditions to determine the effects of temperature and loading rate on the BOD removal from liquefied dairy manure. The trickling filters, with post sedimentation tanks, were studied for eight-week periods at 65°F. and 55°F. The three trickling filters

respectively received nearly constant daily loadings of 26, 14, and 7.5 pounds of five-day BOD per 1,000 cubic feet of trickling filter medium.

The following results, for decreasing rates of loading, were obtained at an operating temperature of 65°F: BOD removals of 64, 80, and 92%; solids removals of 53, 66 and 75%. The dissolved oxygen content of the respective trickling filter effluents was 1.0, 4.5, and 6.0 ppm.

Without draining the post-sedimentation tanks the operating temperature was changed to 55°F. During this phase of the test the follow- results, for decreasing rates of loading, were obtained: BOD removals of 54, 79, and 89%; solids removals of 35, 48, and 60%. The dissolved oxygen content of the respective trickling filter effluents was 0.6, 6.0, and 8.2 ppm.

These data clearly show that the rate of loading and temperature interact with respect to BOD removal and dissolved oxygen content of the effluent. It has not been determined whether the decrease in solids removal was due to the temperature decrease or the length of the experiment. Perhaps an evaluation of the sludge in the post-sedimentation tanks will help to answer this question.

Biological Process Engineering

Heat and Mass Transfer Studies in Food Engineering

J. W. Zahradnik

Two general areas of activity have been pursued. Applied research dealing with mass transfer and related control problems in controlled atmosphere apple storage has yielded two significant developments. Design parameters for lime absorbers have not been developed, and dry lime scrubber performance in the field has been undependable. Now, with the engineering parameters established, the method can be used with greater confidence and the savings in cost over caustic soda of two-thirds achieved. In Massachusetts with approximately 800,000 boxes capacity CA, the annual savings potential is to cut a caustic soda bill of $24,000 down to $8,000 annually.

The other area of research activity under this project has to do with the fundamental aspects of the thermal inactiviation of bacterial cells and spores. In these studies, certain engineering approaches through the use of models and the principles of similitude have made possible heretofore very difficult evaluations. A chemical model has been successfully used to establish the absence of any extrinsic effect of apparatus on the nonlinearity of thermal survival dats for Salmonella. Through the use of a continuous flow system the inactivation kinetics of Salmonella have been compared with a batch-type system. It has been shown that rate data obtained from a static batch-type system cannot, without qualification, be applied to a dynamic continuous flow system. By means of a tracer fluid the

residence time distribution for a complex thermal process has been established. These findings contribute to a better understanding of the death of bacteria and to increased safety in the estimation of thermal processes for foods.

High Temperature - Short Time Fluidized Drying Process for Forage

L. F. Whitney

The drying rates of alfalfa leaves at temperatures ranging from 300-1400°F. have been established for various degrees of stomata opening. Theory was substantiated: drying rates for leaves with stomata open to any degree were the same and significantly higher than for closed stomata. The drying constant was found to be related to the drying temperature by a classical Arrhenius expression. Results for orchard grass were found to be substantially the same with similar significant results, but with relatively slower drying rates as determined from the steeper slope of the Arrhenius relationship.

These results will provide basic parameters of drying rates and damage points for forage in the design of high temperature - short time drying processes. The effect of stomata opening on the drying rates is considered to be of relatively small magnitude and does not appear to substantially improve drying efficiencies.

Food Products Packaging and Handling Systems

G. A. Fitzgerald
S. W. Fletcher

Several new methods of handling cans were tested by standard procedures and found to be satisfactory, and have been proved to be practical from the standpoint of physical resistance to damage and economic improvement in the over-all handling procedure. These results will be published and the work continued in soft good containers. Research will be initiated in the area of using a scientific approach to the development of package evaluation methods rather than the experimental simulation methods that were used to develop the existing methods.

In addition to these formal projects with leadership in this department, faculty members have cooperated in the following area with other departments.

(a) Snow Management Equipment (L. F. Whitney with W. P. MacConell of the Forestry and Wildlife Management Department)

(b) Tree Hole Borer Development (L. F. Whitney with H. G. Abbott of the Forestry and Wildlife Management Department)

(c) Direct Seeder for Conifers (L. F. Whitney with H. G. Abbott of the Forestry and Wildlife Management Department)

(d) Laboratory Pellet Mill Feed Conditioner (L. F. Whitney with G.H. Snoeyenbos of the Veterinary and Animal Sciences Depatment)

(e) Ornamental Plant Storage Environments (J. T. Clayton with J. R. Havis of the Plant and Soil Sciences Department)

CRANBERRY STATION

C. E. Cross, Head

Cranberry Breeding

I. E. Demoranville

Hybrid crosses made in 1958 and planted on the State Bog in 1960 will be subjected to preliminary selection this fall. A half-acre section of the State Bog was rebuilt this spring and planted to the Franklin variety, named in 1961. Grower interest in establishing new plantings is at the highest peak since 1947, and many new nursery plantings of new named and unnamed hybrids were set out this spring.

Data from the Ocean Spray variety project indicates the variety Franklin is superior to others in color development and for most processed products.

Weed Control in Cranberries

I. E. Demoranville

Casoron continues to exhibit excellent weed control capabilities; about 40% (or 4,500 acres) of the state's cranberry bogs was treated this year. Casoron is applied by ground machines and helicopters, in spring or in the fall, on "early-water" or "pre-late-water" bogs.

Diquat and Paraquat for aquatic and ditch weed control, 2,4-D for selective control of three-square grass and some woody weeds by concentrate wiping treatments, and the potassium salt of maleic hydrazide for the selective control of about 12-weed species and registrations with appropriate residue tolerances are being petitioned from the United States Department of Agriculture and the Food and Drug Administration.

Rearing Cranberry Fruitworm in the Laboratory

W. E. Tomlinson

Attempts to break diapause of cranberry fruitworm larvae without a period of cold exposure in the laboratory using various exposures to light and darkness were unsuccessful. The optimum cold storage temperature and length of storage was not determined, but at 40°F. the optimum storage was close to 100 days. A cold exposure longer than 100 days did not increase the percentage of moth emergence, but did shorten the time to emergence after removal from the cold. Very few moths emerged from larvae held in cold storage for one year.

Cranberry Fruitworm Mating Studies

W. E. Tomlinson

Black-light records show that the female cranberry fruitworm is normally multiple mating. Close to two-thirds of the field population mates more than once. Though this would not rule out sterile male control techniques, it would make control by this method more difficult and slower to accomplish than with a single mating species. Successful use of sterilization techniques with any insect species is dependent on a means of rearing large populations in the laboratory. Attempts to rear cranberry fruitworm in the laboratory has been hampered by low mating success of captive moths. However, tests in late winter with limited numbers of moths indicated that mating in confinement increased when moths were exposed to black-light peaking at 3654 angstroms.

Insecticide Testing on Cranberries

W. E. Tomlinson

SD 9129 (dimethyl phosphate of 3-hydroxy-N-methyl-ciscrotonamide) and GS 13005 (O,O-dimethyl-S-/5-methoxy-1,3,4-thiodiozol-2(3H)-on-3-yl-methyl/ - dithiophosphate) were as effective as parathion at comparable dosages against cranberry tipworm and cranberry fruitworm. Their excellent performance and favorable mammalian toxicity level make them attractive when compared to parathion. Further testing and residue breakdown studies will be conducted.

Analytical Chemistry

B. M. Zuckerman

Parathion Translocation and Distribution. Parathion was detected in bean leaflets two hours following application to soil of plants grown in sterile root culture. Analysis for degradation products indicated the parent molecule intact for more than 24 hours. Parathion was shown to be transported selectively by certain leaf

veins resulting in uneven distribution within the plant. Low levels of parathion or associated metabolites were detected in leaf-feeding insects 24 hours following soil application.

Diazinon was rapidly translocated through plants and appeared in root exudates within two days following foliar applications to plants grown in sterile root systems. In the absence of microbial contaminants the parent molecule did not break down during a seven day test period, whereas selected bacteria utilized at least the ethyl acetate portion of the molecule within 24 hours.

Nematology

B. M. Zuckerman

Enzyme Studies. The presence of the enzyme phenylalanine deaminase was demonstrated in plant parasitic nematodes for the first time. A rapid method for the detection and identification of this enzyme was found and described.

Several other enzyme systems in nematodes have been detected and a method developed which may possibly assist in localizing site of enzyme activity within the body of a small nematode. The method involves intricate handling techniques during the process of sectioning with a freezing microtome.

Culturing. Panagrellus redivivus has been grown through one generation on a chemically defined medium. Since this finding, if it can be consistently repeated, represents a break-through in the field of parasitology, this study is being pursued intensively.

Tetylenchus jocturs, a plant parasitic nematode which previously has not been cultured axenically, has been raised through several generations on balsam root culture.

Nematophagous Fungi and Nematode Predators. Nine species of predators and five of nematophagous fungi were described as occurring in cranberry soils.

Food Technology

B. M. Zuckerman

The comparative characteristics of fifteen cranberry varieties were studied. Characters investigated included: relative pigmentation and pectin content of fresh fruit, juice, and processed sauce; juice yield of each variety; and taste of products manufactured from each variety.

Persistence, Accumulation and Fate of Pesticides

C. W. Miller

The persistence of dieldrin following application to cranberry bog soils has been established. Translocation of the chemical in the soil in a vertical or horizontal direction does not appear to occur as a result of water management practices involved in cranberry cultivation.

Retention of dieldrin and the herbicide dichlobenile in the bog is related to the organic content of the soil. Soil analyses for dichlobenile show relatively high retention, while bio-assay tests fail to indicate the presence of the herbicide. It is thought the chemical is bound to the organic matter, and that it is held ineffective. Lateral movement of the herbicide off the bog into surrounding waters does not occur.

Water Resources

C. W. Miller

Diazinon and parathion have been shown in the laboratory to be transported off a small model bog in draining flood waters 24 hours after application. The quantity removed ranged from 4.6 to 6.5% of the total applied. Fish and mussels exposed to these contaminated waters accumulated the chemicals to levels 10-100 times the concentration in the water. No degradation products of diazinon were found, but three metabolites of parathion were isolated, one of which has been identified.

Mechanization of Cultural and Harvest Operations

J. S. Norton

Bulk Storage of Cranberries. Perforated tubes were inserted in eight-barrel boxes and tested with and without forced air circulation. After three months of storage, the quality of cranberries receiving forced ventilation was equal to that of berries in conventional one-third barrel wooden boxes. Fruit in bulk boxes without forced air was unusable with 65% of berries decayed after three months.

Bulk Handling Equipment. A truck-mounted loader (1500 lb. capacity) was designed and built to hoist palletized field boxes onto and off the truck. It will be commercially tested next fall and cost comparisons made against manual loading of 40-lb. field boxes.

Bulk Harvesting Equipment. A trailer carrying a three-barrel capacity box was constructed and attached to a picking machine. Feasibility of picking with this unit was demonstrated and a 50% increase in harvest rate achieved.

Water Harvesting of Cranberries. A loader and cleaner has been designed and is under construction for the removal of floating berries from a flooded bog into bulk containers on the bog shore. This is one phase of an operation designed to eliminate the 25% loss of berries in conventional dry harvest operations.

Water Resources Research. Plans and designs have been drawn and co-operators enlisted for the installation of low-cost contour dikes to conserve water needed to flood cranberry vines on out-of-level bogs. First installations are on schedule for the fall of 1966.

Harvest Machinery. A new harvesting machine for cranberries is well along in design. It is planned to function in both flood and dry conditions, and it is hoped will be flexible enough to follow closely the soil surface contours and pick cleaner than existing machines. A one-quarter scale model is under construction.

DEPARTMENT OF ENVIRONMENTAL SCIENCES

J. A. Naegele, Head

Research in the department continues to accelerate with emphasis upon the fundamental and applied aspects of environmental contamination of the soil, water, and air. Increased participation in the graduate programs of other departments and the increased receipt of research grants continues.

Studies on Regulated and Non-Regulated Growth

Air Pollution Effects on Floriculture Crops

N. W. Butterfield

To indicate the presence of pollutants, particularly O_3, we have initiated in cooperation with the Public Health Service and the United States Department of Agriculture a program of O_3 monitoring throughout the Boston area using sensitive tobacco strains. We desire to determine when and for how long O_3 fumigations occur in the area.

As early as May two specific varieties of tobacco received slight fumigations of ozone and certain varieties of petunias were fumigated, apparently with one of the aldehydes. Thus, we now have a program of pollution early warning (PEW) established with the growers and county agents to report to us any floret drop or other damage that can be correlated with pollutants. It is expected that with new techniques now employed we will be able to understand the problems arising from polluted environments.

Bio-Assay for the Detection of Photochemical Smog Potential

G. Hemerick

There is no instrument available that will detect photochemical smog potential. The objective of this study is to determine the feasibility of using cultures of algae to detect photochemical smog. Two types of bio-assay instruments have been designed; one is based on the continuous replacement of medium for rapidly-dividing algae; the other is based on positive photoaxis of algal flagellates. Algal cultures in the instruments are aerated. Phytoxic air pollution is indicated by decline in algal growth rate or decrease in number of flagellates swarming in an illuminated zone. Both effects can be measured photometrically as increase in light transmitted through the culture.

For this study approximately 73 species of algae, including flagellates and types which grow very rapidly, have been cultured. An inexpensive photosynthetic, continuous culture apparatus has been fabricated. Preliminary observations on phototaxis have been made.

The Influence of Broad Spectrum Supplemental Light on Growth and Flowering Characteristics of Selected Plants

G. Hemerick
R. E. Young
N. W. Butterfield

The rate of growth and flowering of greenhouse plants varies throughout the year, principally because of the variation in day length. It is desirable to determine a maximum rate of greenhouse plant production and to maintain this rate of production economically.

A series of greenhouse crops are, therefore, being grown with and without supplemental illumination at night. Two types of fluorescent lamps are being compared - cool-white, and a lamp having an emission spectrum similar to the action spectrum for photosynthesis in flowering plants.

In the first series of experiments, petunis, snapdragons, and carnations received supplemental illumination of approximately 30 lamp-watts or 6 watts of absolute visible radiation per square foot from midnight to morning. Plant weight and number of flowers were recorded. This work indicates specific timing and production benefits from the supplemental lighting.

Investigations of Fatty Acids from Neutral Lipid and Phosphatide Fractions of Atypical Mycobacteria

Unsaturated Acids. Permanganate-periodate oxidation of the unsaturated fatty acids from the triglyceride fractions of seven atypical

mycobacterial strains has shown the 18 carbon monoenoic acid to consist principally of oleic (cis 9, 10-octadecenoic acid with 10-20% other isomers (7,8-8, 9-10, 11-octadecenoic acids). The 16 carbon monoenoic acid consists principally of cis 10, 11-hexadecenoic acid with up to 40% other isomers, depending on the strain. The other isomers are 7, 8-8, 9, and 9-10 hexadecenoic acids. The presence of trans isomers has been observed by infrared spectrometry. Their presence may be artifactual.

Saturated Acids. The fatty acid spectrum of all strains studied are similar to those reported for the human and bovine strains. From chain lengths of 12 to 20 carbons odd and even acids are present, the even predominating. In addition, there are also branched-chain isomers of most of the even-carbon acids. The predominant branched-chain acids are a branched 19 carbon acid, shown by chromic acid degradation and GLC of the resulting ketones to be 10-methyl-stearic acid. Mass spectrometry of several branched-chain acids of a Runyon group I organism showed that these acids were mixtures, the methyl branching occurring at several places along the carbon chain. Preliminary GLC data of acids from a Runyon group III organism also show that the branched acids are mixtures of isomers.

Action Spectra and Mass Cultures of Variously-Pigmented Algae and Photosynthetic Bacteria

G. Hemerick

Kilogram quantities of fresh, pure algae (Tolypothrix tenuis) were produced under controlled conditions to promote biosynthesis of predominantly phycoerythrin. Mass culture facilities were expanded to 200-liter capacity, six separately-lighted compartments, and a greenhouse culture facility. Growth rate of T. tenuis under various conditions of medium, water, light and amount of initial inoculum was determined by weighing the algae which were grown in polyethylene bags. Viability of refrigerated algae was tested. Absorption spectra and fluorescence of algal pigment solutions were compared with respect to mass culture conditions.

Cultures of the photosynthetic bacteria, Rhodopseudomonas spheroides, Rhodospirillum rubrum, and Chromatium were requested, and delivery is anticipated.

Investigations Undertaken or Planned. Our immediate objective is large-scale production of aerobic and anaerobic cultures of R. spheroides while maintaining active growth of R. rubrum and Chromatium, and limited production (100 liters) of T. tenuis. We hope to establish a chemostat with continuous dilution and continuous refrigerated harvest of the photosynthetic bacteria.

One objective during the reporting period was to promote the production of phycoerythrin by T. tenuis. Comparative absorption spectra of

crude water extracts of algal pigments were obtained by measuring their optical density in fifteen regions of the visible spectrum with a Klett-Summerson colorimeter. Pigment from T. tenuis grown in green fluorescent light had nearly the same absorption spectrum as an extract from Porphyridium cruentum, in the region from 470 to 690 millimicrons, with maxima near 550. All extracts from T. tenuis had small absorption maxima near 420 millimicrons, which were absent in P. cruentum.

Extracts from T. tenuis grown in red light had a maximum near 600 millimicrons, while pigments produced in blue light were intermediate in absorption distribution, suggesting a blend of blue and red pigments. The pigment extracts also differed in color of fluorescence in ultra-violet radiation; T. tenuis from green light fluoresced pink, from red light, a purplish wine color, and from blue light, the fluorescence was yellowish orange, similar to that from P. cruentum. These data are preliminary; additional algae samples will be similarly analyzed as time permits.

Isolation of Algae and Fungi for Protein Production

G. Hemerick

Over 100 species of algae, including species eaten by man, were collected or isolated, purified and cultured. Methods of mass culture were developed for production of kilogram quantities of pure algae. Economical methods of harvest were found for different types of algae, and successive crops of algae were grown in the effluent nutrient solution. Fungi which utilize algae as the sole nutrient source were isolated. A flock of Japanese quail was successfully propagated for feeding trials.

Value of Results: Portable apparatus for promoting growth and for harvesting algae, developed for this project, may have application in purification of water supplies as well as production of algae as livestock feed. New methods for isolation and identification of algae, as well as methods of mass culture, harvest and storage of algae are useful to other scientists who require certain amounts of specific algal products of known origin and purity.

Magnesium and Carbon Dioxide Studies on Greenhouse Tomatoes

R. E. Young

The results of the spring crop of greenhouse tomatoes show that even the application of large amounts of potash to soils, already extra high in potash, did not produce the severe type of magnesium deficiency. The application of fertilizer was so high that it reduced the crop to only 65% of last year. It must be concluded, from the results to date, that a high level of potash alone is not the cause

of the severe form of magnesium deficiency. All plots showed the mild form of the deficiency and applications of three tons of magnesium sulphate per acre failed to prevent the formation of this deficiency. Spraying the plants with magnesium sulphate corrected the mild deficiency but did not result in increased yield. This brings up the question of whether the mild form of the deficiency results in sufficient loss of chlorophyl to effect growth.

The addition of 1200 ppm of carbon dioxide to the greenhouse atmosphere did not result in an increase in total crop. It did increase early yield. Growing the crop at higher temperatures did not change the results. These results are in agreement with the past results, except for one year when the addition of CO_2 resulted in an increase of total yield.

Studies in Pollution Ecology

Epidemeology of Avian Necrosis

G. P. Faddoul
G. W. Fellows

Epizootiological studies were expanded to ascertain the significance of wild birds as a reservoir of Pasteurella multocida to the domestic poultry population. Epizootics in wild birds have not received adequate attention in the past, and may account for the lack of knowledge as to the natural distribution of common pathogens. This report describes 11 natural cases of Pasteurella infection identified in wild avian species in Massachusetts during a two-year survey (March 9, 1964--April 21, 1966).

A total of 412 specimens were submitted in 212 wild bird consignments to the diagnostic laboratory for necropsy and a bacteriological examination. Fifty different avian species were represented in the study. Pasteurella multocida was isolated from four out of 36 cases of robins, three out of 13 cases of starlings, one out of 22 cases of grackles, one out of four cases of grosbeaks, one out of three cases of pheasants, and one out of one case of oriole.

A septicemic Pasteurella infection was identified in 11 out of 212 wild bird consignments submitted during a two-year survey. These findings indicate a need for a system to monitor the incidence of Pasteurella multocida and perhaps other pathogens in the free-flying wild bird population.

Sub-Lethal Effects of Pesticides on Embryonic Development in White Leghorn Chickens

G. W. Fellows
W. D. McEnroe

The significance of pesticides on populations of wild birds is not

known, although reproductive failures have been reported and attributed to DDT. Forced feeding studies of DDT in chicks has demonstrated transovarial effects.

Current work is concerned with the relationship between the effect of transovarian deposition of DDT and the yolk injection of DDT. Similar ranges of DDT are being injected into the yolk to compare the results with DDT deposited in eggs by females on 100 ppm DDT diets.

To date the preliminary work on solvent selection has been completed. The solvent of choice is corn oil which shows no significant effect on embryo development at 0.1 ml yolk sac injection per egg.

Transformations of Insecticides by Plants

H. B. Gunner
B. M. Zuckerman

A bacterium arising as the predominant soil microfloral form in response to the application of the organophosphate insecticide, Diazinon, was isolated and the nutritional and biochemical pathway of its attack on the Diazinon molecule studied. The presence of C-^{14}-Diazinon in microbial cells incubated with labelled pesticide established unequivocally that these cells were in fact permeable to this compound and functional in its degradation. Nutritional studies showed that the microbial cells utilized Diazinon as a respective source of sulfur, phosphorus, carbon and nitrogen in that order of preference. The biodegradability of Diazinon proved to be conditioned by its solubilization in a suitable carrier such as ethyl alcohol and, equally, by the presence of an additional carbon source.

Studies in the metabolism of Diazinon suggest that two principal products result after initial microbial attack: 2-isopropyl-4 methyl-6-hydroxypyrimidine and ethyl acid phosphate following cleavage at the -O-P bond. Suitable gas chromatographic and thin layer chromatographic methods have been developed for the identification of these products as well as their extraction and clean-up from culture media.

A Study of Anaerobic Pathogens in Low Temperature Environments

J. H. Green
W. Litsky

The emphasis of current research is to explore the physiology of Clostridium botulinum type E, and related botulinum organisms, in order to understand these dangerous pathogens which are a potential hazard in the food industry. The first phase of this project,

carbohydrate metabolism, is nearing completion. (1) Optima conditions for carbohydrate metabolism are being explored. An unusual condition (requirement) has been observed. C. botulinum type E vegetative cells require the presence of casein hydrolysates in order to carry on carbohydrate metabolism. Preliminary experimentation indicates that the peptides of casein hydrolysate, probably in combination with free amino acids, are responsible for this phenomenon. (2) Radiorespirometry studies involving specifically C^{14} labelled carbohydrates are in process. Initial results indicate that the Embden-Meyerhof-Parnas (EMP) pathway is the main route of carbohydrate catabolism. Either the hexose monophosphate (HMP) or the Enter-Doudoroff (ED) pathways are probably not operative, although a reinvestigation, with refined techniques, is being performed to verify this. (3) Cultural studies have been simultaneously performed to test the rate of growth and carbohydrate consumption in various concentrations of peptides.

It is hoped that by exploring the physiology of these botulinum organisms a better understanding of their capacity to develop and to grow might be gained, and better methods of their control might be achieved.

Biological and Chemical Studies of Mite Resistance to Chemicals

J. A. Naegele
W. D. McEnroe

Three areas of concentration have shown progress: (a) circadian organization; (b) light response selection; (c) population fitness and selection.

Circadian Organization. The presence of biological rhythms has been demonstrated by measurement of oviposition patterns, recovery rate from narcosis, and mortality to indifferent narcotics. Both daily rhythms which use light as an entrainment factor and lunar rhythms, using some geophysical event associated with the lunar day, have been demonstrated.

Light Response. Selection for behavioral response, using 325 u and 525 u in selection agents, have demonstrated the presence of two distinct behavioral responses, two receptor systems, and the ability to select for increased response and decreased response to U.V. (325 u).

Population Fitness. Selection studies with inbred and resistant strains have demonstrated that well-known concepts of population dynamics such as genetic homeostasis, introgression with the destruction of the model phenotype, loss of fitness, sex ratio disturbances, occur during the selection process. These facts emphasize that resistance factors cannot exist independent of the genetic matrix.

Studies on the Iron Bacteria: Nutrition, Isolation and Methods of Elimination

W. S. Mueller

This project received final approval in January 1965. A study has been made to determine the bactericidal effectiveness of various chemicals on Sphaerotilus natans in paper mill process water. The chemicals tested are given in the following order of decreasing effectiveness. Chlorine, 2-Bromo-4-hydroxy-acetophenone, Chlorine dioxide, Bis-1-4-Bromoacetoxy-2-butene, 1-Bromoacetoxy-2-proponol + Bromoacetic acid and Silver fluoride (irradiated). Lowering the temperature from 80°F. to 50°F. decreased the effectiveness of chlorine against Sp. natans. Sp. natans was completely destroyed after two hours contact with mill process water which had been adjusted to a pH of 10.9 by the addition of lime water. A pure culture of Sp. natans would not grow in C.G.Y. broth nor in paper mill process water in the absence of oxygen. Tests also showed that Sp. natans can be filtered out of mill process water by the use of filter aid filters. Results obtained indicate that a combination of chemical treatment and filtering may have some advantages.

Any information obtained from this study should aid the many industries that are dependent upon a good water supply. Also, the American people are entitled to a good water supply for domestic use which is becoming one of the major problems due to the expansion of our population. Furthermore, information from this study should aid in the general understanding of the biological process of these organisms.

The Cytogenetics, Morphology and Evolution of Corn and Its Relatives

W. C. Galinat

A unique method of cytogenetic analysis is being used to determine the gene content of Tripsacum chromosomes in terms of the already well-known gene content of corn chromosomes. The chromosomes of Tripsacum are transferred to various genetic stocks of corn and then identified by the recessive genes which they are able to cover up. The results have indicated that Tripsacum is an amphidiploid genus with a genome of the now extinct wild corn as one of its parents. Thus, Tripsacum is important as part of a larger gene pool to better meet all corn breeding requirements of the future. A comparison of the gene content has revealed two cases where genes on one arm of a corn chromosome correspond to a different Tripsacum chromosome than those on the other arm. These results reveal genetic pathways to improve corn.

The practical use of the vestigial glume gene (Vg) in sweet corn breeding has become possible by the discovery of two major modifying genes, as well as other lesser ones, which permit the production of the essential pollen in this genetic type. Thus, the ear of corn may now reach a higher level of utility by acquiring a glumeless cob.

Vegetable Breeding for Improvement of Quality and Adaptability

R. E. Young

In a breeding project to develop a small dark green record, second early cabbage, suitable for culture on beds, considerable progress was made in both a spring and a fall crop in eliminating those selections that did not have hard heads. Three slightly differing lines have been selected. These are uniform for horticultural characteristics but are still segregating for hardness of head and to stresses of extreme weather.

Waltham 24 Broccoli, a clubroot and mildew tolerant variety, has continued to increase in usefulness, particularly in those areas where clubroot is severe.

Lack of seed, for testing by growers, continues to slow the final testing and evaluating three strains of iceberg type lettuce developed for adaptation in this area. Strain 15 cut 97% of the crop in three harvests over a period of eight days. The percentage of cut was much higher than for the commercial variety.

Greenhouse Tomatoes. A breeding program to incorporate resistance to mildew, mosaic, verticillium, fusarium, and nematodes was carried through the third back-cross generation. All of these resistancies are single gene dominate and will be used in hybrids. A new variety for the greenhouse was released showing resistance to mildew, fusarium, and nematodes.

Trellis Tomatoes. Duplicated trials of nine hybrids for tellis use were conducted. The results have shown that the most desirable characteristics of earliness, large size, and freedom from cracks vary considerably. Weather changes from year to year make it difficult to determine just which hybrid will best serve the largest number of growers.

Butternut Squash. Taste testing and storage experiments, conducted during the year, helped greatly in eliminating those lines showing undesirable characteristics. Difficulty has been encountered in obtaining proper type in regard to neck thickness. The best lines are ready for grower testing.

Carnation Breeding for Commercial Varieties for New England

F. J. Campbell

Selected clonal evaluations on a broader scale prior to commercial trialing received emphasis. The value of clones determined by laboratory keeping tests and analyses of production and grading records

resulted in good evaluation guides. The 1963 progeny from greenhouse varieties crossed with garden Chaboud varieties indicated that garden varieties carry the dominant factor for grassiness, small flowers, and cropping; garden varieties carry factors of a potentially desirable broad color spectrum but is overshadowed by undesirable characteristics. Branching and height characteristics were considered in selecting progeny from other 1963 crosses for uses as 'miniature' type carnations and pot plant carnations, respectively, along with standard types. Four-thousand clones were card indexed, grouped according to parental background and anticipated characteristics. Additional named commercial varieties were grown for comparative observations and breeding purposes. Replicated clones were planted in soils amended with three different sources of calcined clay, horticultural perlite and peat moss to determine the value of these amendments and clonal reactions. An outstanding seedling - The "Boston Marathones" - is being test marketed.

DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY

W. B. Esselen, Head

W. M. Hunting

Research is being done toward the development of chemical and physical methods for detection and determination of dextrose from various sources in the presence of other carbohydrates.

R. E. Levin

The first use of the chelating agent tetra-sodium ethylene-diamine-tetraacetic (EDTA) as a bacteriostatic food preservative is being investigated. Work to date has shown that fish which remained "fresh" for only four days at 3°C. without treatment remained "fresh" for ten days after being dipped in a 1% solution prior to being stored at 3°C.

I. S. Fagerson

A combined gas chromatograph-mass spectrometer system has been placed in operation. It is the only system of its type among the New England State Universities. Primary application has been for the isolation and identification of flavor components from foods. It has also been used in support of research in other departments of the University. These studies on the origins of one type of flavor component, delta-lactones in heated milk fat, support the view that these arise from thermal hydrolysis of a glyceride containing the appropriate hydroxy acid. Studies on the thermal degradation of glucose indicate that the degradation pathway at low temperatures appears to proceed via an initial dehydration to yield 5-hydroxy methyl-furfural and then furfural. It had previously been thought that furfural was not formed in appreciable amounts from such compound.

W. W. Nawar

Continued research is being done on the effect of heat on the decomposition of fats and on the realtionships between objective and subjective methods of flavor measurement.

F. J. Francis

Major effort has been devoted to the development of good food colorimetry and plant pigment biochemistry research facilities. A strong research and graduate training program is being carried on in this area, with particular emphasis on isolation and identification of pigments and color stability in processed apple and cranberry products, and the chlorophyll of green vegetables.

D. J. Hankinson

Research on fluid dynamics of circulation cleaning, with the support of a U. S. Public Health Service Grant is in its third and final year. It promises to yield new information on the factors which cause milk to deposit on heated surface, as well as an evaluation of the physical forces which can effect removal of these soils.

H. O. Hultin

An active and productive research program is being carried on in connection with the distribution of glycolytic enzymes in skeletal muscle.

C. R. Stumbo

An extensive research program is being conducted on the kinetics and mode of vapor-phase sterilization. Results obtained with a non-explosive mixture of ethylene oxide (12%) and dichlorodifluoromethane (88%) are indeed encouraging. They indicate that surface sterilization may be accomplished in as little as 90 seconds at 100°C. This is considered to be the most significant finding coming out of the program in five years. The finding paves the way to the commercial application of this sterilant in many areas. High speed sterilization of glass containers to be used in the aseptic canning process, for the first time, appears commercially feasible. The finding should be similarly valuable in other applications, such as sterilization of hospital space and equipment, pharmaceutical supplies too sensitive to be sterilized by heat, clean rooms for spacecraft assembly, and spacecraft.

Of considerable public health significance are studies elucidating the influence of various factors on the death kinetics of Clostridium botulinum subjected to heat and/or ethylene oxide. This organism is the cause of botulism and is the only organism, in foods to be canned, that has major public health significance.

After considerable delays we are optimistic that funding may be provided during the coming year to implement a research and continuing education program in the area of maine food science and technology to be supported on a matching fund basis (State 25% and Federal 75% under P.L. 88-309). Our proposal has been approved at the state and federal level and all that remains is the availability of state funding.

DEPARTMENT OF FORESTRY AND WILDLIFE MANAGEMENT

A. D. Rhodes, Head

Principal Research Activities

Departmental research is carried on by most staff members working individually and with the assistance of graduate students. In addition to University personnel research is also performed by the Massachusetts Cooperative Wildlife Research Unit and the Cooperative Fishery Unit, both of which are based on the department and manned by federal scientists who carry adjunct faculty appointments. Funds for research are mainly derived from the Agricultural Experiment Station, the Massachusetts Divisions of Maine Fisheries, and Fisheries and Game, the U. S. Fish and Wildlife Service, and the Massachusetts Water Resources Research Center. Smaller grants have been received from other sources of which the U. S. Forest Service has been a frequent cooperator. Including salaries our research budget for this year has been about $300,000.

Wood and Plant Chemistry

E. Bennett

The Comparative Biochemistry of the Seeds of Certain Conifers with Special Reference to the Essential Oils. The chemistry and biochemistry of the seeds of four species of conifers are being investigated on the basis of chemical composition and subsequent use. Principal emphasis is being placed on the hemicelluloses and the essential oils. The composition, molar ratios and length of chain will be determined. The essential oils will be fractioned and partially identified by gas chromatographic procedures. This part of the project is aimed at discovering compounds which might serve as general rodent repellents.

The Chemistry of Wood - the Organic Acids in Leaves, Twigs and Seasoned Lumber from Certain Forest Trees as Affected by Age, Dormancy, and Disease. The chemistry of wood, as a biological unit, is being investigated with major emphasis on chemical transformations and equilibria. Currently considerations are being given the metabolism of organic acids. A detailed study will be made of the identity and seasonal and other effects on their participation in the Krebs cycle.

The investigation is designed to yield information on the interrelationships of certain chemical compounds in the tree and their behavior under normal and abnormal conditions.

Wood Technology

R. B. Hoadley
H. B. Gatslick

The Perpendicular-to-Grain Rheological Behavior of Wood Restrained from Normal Swelling Due to Moisture Increase. When dry wood specimens are fitted snugly into steel fixtures, and then wetted, the attempt of the wood to swell across the grain develops compression stress. If the proportional limit in compression is exceeded, and the specimen is redried to its original moisture content, it will shrink to a size smaller than its original dimensions. Tests conducted with four species (basswood, sugar maple, hickory, massaranduba) showed generally the same behavior among these species, with the amount of set developed being proportional to the total moisture content increase while under restraint. Set development is greatest in the direction parallel to the growth rings, reflecting the greater tangential than radial swelling of wood. The relationship between total moisture change and set suggests that strain does not develop uniformly throughout the cross-section but that stress concentrations are involved. The effect of total time under restraint has not been clearly established.

Technical Properties of Wood from Certain Forest Tree Species in the Northeast. Part I - Physical and Mechanical Properties and Drying Characteristics of Plantation-Grown Red Pine (Pinus resinosa, Ait.). Although plantations of red pine in the Northeast represent substantial volumes of timber, it has been rumored that wood from plantation grown trees of this species is of comparatively low quality. Material from sixteen 40-year-old trees taken from four locations in Massachusetts was evaluated by standard ASTM procedures for both physical and mechanical properties. Results indicate that average strength properties were lower (up to 50% less) than generally accepted values previously published for this species, with considerable brashness noted in both static and impact bending. It was noted, however, that outer layers of wood had greatest strength, suggesting that older trees managed for longer cutting rotations, on better sites, under optimum growth conditions, might yield stronger material. Increment borings at breast height appear to be a reliable means of evaluating specific gravity, rate of growth, and per cent summerwood for the tree stem.

Forestry and Resource Development

H. G. Abbott
R. S. Bond
W. P. MacConnell
D. L. Mader
A. D. Rhodes
A. J. W. Scheffey

Establishment of Forests by Direct Seeding. These studies have investigated factors affecting the establishment of forests by direct seeding and have evaluated the influence of birds and mammals on natural regeneration and on direct seeded areas. Research, conducted over the past ten years, has demonstrated the feasibility of direct-seeding certain conifers.

Consumer Analysis of Forest-Oriented Recreation Activities in the Northeast. This study is part of a regional project involving several Northeastern States. Massachusetts is attempting to determine, by mail questionnaire and interview, what it is that hunters and fishermen desire from their hunting and fishing. Comparisons will be made on the basis of geography and certain socio-economic characteristics of the sprtsmen.

Thinning Young White Pine Stands with Herbicides. After cull hardwoods have been removed from plantations and natural coniferous stands the next necessary operation is the removal of surplus trees to concentrate potential wood production on a limited number of selected trees. Herbicide treatments similar to those used against cull hardwoods are appropriate for pre-commercial thinning of white pine. Picloram and dicamba at 1 to 1 and 5 to 1 in water and the amine salt of 2,4,5-T at 1 to 1 in water all successfully controlled whie pine trees in thinning operations when applied at the base in connected hacks by tree injector.

Recreational Resources of the Connecticut River as Determined from Aerial Photographs. National statistics indicate the need for new outdoor recreation facilities to satisfy the demand for current and future use of our wild land resource. Most in demand are sites adjacent to water, and in urban New England most of the good sites have already been developed. The Connecticut River has not been exploited for recreation because of its polluted state. Pollution abatement has moved ahead at a steady pace, however, so that more of its waters are suitable for recreation. In the near future this great river, relatively free of pollution, will face explosive recreational growth. Towns, cities and the four states through which it flows need knowledge about potential recreation sites on the river so they may make wise land acquisitions and formulate proper zoning regulations for recreation.

The land on both sides of the river in both Massachusetts and Connecticut has been separated by a rather complex system into a use classification evolved for the study. Maps prepared in this study will locate possible recreation sites on the river from its headwaters to the sea.

The objective of this research is to develop and test the use of aerial photogrammetric techniques as a tool for identifying and classifying river-based recreation sites. The classification system has seven categories:

1. Agricultural or open lands - 9 types.
2. Forest lands - 105 types.
3. Wet lands - 5 types.
4. Mining, exposed rock, or waste disposal areas - 6 types.
5. Urban areas - 11 types.
6. Outdoor recreation areas - 11 types.
7. River bank and edge of river bed - 40 types.

As a first step all the land within 1000 feet of the river's edge is to be classified on the basis of its current use. The river bank and edge of the river bed will be identified on aerial photographs and mapped for use by the recreational planner. A catalogue of suitable sites for recreational use and recommendations concerning their development will be prepared.

Influence of Soil and Site Conditions on the Growth of Forest Trees. This project is a regional study in which Maine, New Hampshire, Massachusetts, and the U. S. Forest Service are cooperating. Red pine and eastern white pine are being studied. Growth and yield of trees and stands are being correlated with site characteristics, but especially with the physical and chemical properties of the soil.

Etiology of Maple Decline. Sugar maples in many sections of Massachusetts have exhibited typical decline symptoms for a number of years: sparse, yellowish foliage, thin crowns, twig and even branch die-back. Decline is especially evident along highways and city streets but is present to a lesser degree in maple-sugar orchards and forests. This department is cooperating with others on campus to investigate this problem. Our contribution concerns: (a) a study in detail of decline occurrence as it relates to geography, highway, sugarbush and forest, and certain gross characteristics of site, and (b) micro-site studies in the forest involving soil properties and nutrient relationships. Artificial fertilization has effected marked improvement in the foliage color and apparent vigor of declining trees.

Factors Affecting Evapo-Transpiration, Run-off, Storage and Drainage Characteristics of Water from Soil in Massachusetts. The purpose of this research is to determine the combined effects of different soils and associated forest vegetation under different types of forest management on interception of precipitation, infiltration, surface movement, percolation, evapo-transpiration, soil water storage, and sub-surface drainage. Little work of this nature has been performed in the Northeast where until recently there appeared to be no problems of water shortage. Now, however, there is abundant evidence to the contrary, and information from studies of this nature is much needed.

Yields of Managed Forest Stands. Test plots have been established in even-aged, pole-sized stands of red pine, eastern white pine, Norway spruce, eastern hemlock and sugar maple, and in uneven-aged eastern white pine and mixed hemlock and hardwoods. These plots have been placed under intensive management involving pruning as appropriate, thinnings at three and five (mostly) year intervals, and selection cuttings on a ten-year cutting cycle. Records are kept of mortality, tree and stand development.

The Conservation Commission Movement in the Northeast. Massachusetts enacted legislation in the late 1950's which authorized the establishment by a municipality of a Conservation Commission with power to acquire conservation lands. The movement, which originated in this state, has spread rapidly so that today there are commissions in about two-thirds of the state's towns, and similar legislation has been adopted in several other states. The objective of this study is to document the development of the Conservation Commissions, their history and how they function.

Fisheries Biology

Quabbin Reservoir Investigations

Massachusetts Cooperative Fishery Unit:
J. A. McCann
R. J. Reed

Quabbin Reservoir affords the anglers of Massachusetts a diversified fish population found nowhere else in the state. The Massachusetts Division of Fisheries and Game has been conducting creel census programs and research on the Quabbin for a number of years. However, little work has been done on life histories of any of the fishes. The rock bass, which usually is an incidental species in the waters of Massachusetts, is extremely abundant in the Quabbin. Creel census studies indicate an exploding population and a potential management problem. The white perch is abundant in the reservoir and has ranked either second or third in the creel census during the past seven years. The life histories of these and other species of fish in the Quabbin are under study. Unit personnel are also studying the population dynamics of the brown and rainbow trout in the Quabbin since only limited interest has been previously shown towards these species and they contribute significantly to the sport fishery.

Connecticut River Investigations

Massachusetts Cooperative Fishery Unit:
J. A. McCann
R. J. Reed

The steady improvement in the water quality through pollution abatement of the large rivers of this country such as the Connecticut River

will promote increased use of these waters for recreational purposes. Recently much state and federal interest has been turned towards evaluating the recreational potential of the Connecticut River. The Unit Leader is assisting in a project of the Department of Forestry and Wildlife Management to study the feasibility of the use of aerial photographs to map the shoreline of the Connecticut River and evaluating the present and potential land uses for recreational development. Unit personnel will investigate the possibilities of classifying the river into general aquatic habitats, depending upon the water current, depth of water, water quality, shoreline type, and bottom type. The fish population of the river in Massachusetts is also being studied.

Weweantic Estuarine Investigations

C. R. Cole

Salt marshes and their meandering estuarine streams too often have been considered a biological wasteland and public apathy has allowed these areas to become targets of developers of waterfront properties. Although no fishery ecologist doubts the importance of these estuarine areas as breeding grounds for commercial and sport fisheries, little hard data are available to support these beliefs. This program will attempt to obtain detailed data on the ecology of the estuarine areas of the Weweantic River on the northwestern shore of Buzzards Bay and the effects of these environmental parameters in determining survival of several dominant fish species within the estuary.

Ecological factors control the stock contributions and mortality rates of larval and juvenile fishes in the estuary. Recent studies indicate excessive mortality in late larval stages of the winter flounder; current research discloses heavy pre-spawning ovarian concentrations of DDT and its degradation products, possibly resulting from mosquito control in the estuary. Current management practices in cranberry production utilizing parathion are also being investigated. The seasonal occurrence and frequency of abundance of eggs and larval stages of other species of fishes along with basic environmental parameters are continuing to be monitored within the system.

Marine Sport Fishery Statistics (Buzzards Bay)

Massachusetts Cooperative Fishery Unit:
J. A. McCann
R. J. Reed

Federal and state governments have just recently begun to realize the importance of reliable catch statistics of the marine sport fisheries. Several studies by Atlantic coast state personnel have been completed that indicate some of the problems in marine sport fishery data collection. This project will evaluate survey methods

which have already been developed and apply them to a pilot study area along the Massachusetts coast. The total program will obtain the information necessary to develop an efficient and sound method to estimate the statistics of the Atlantic coast marine sport fisheries.

Survey and Evaluation of Small Artificial Recreational Ponds in Central Massachusetts

Massachusetts Cooperative Fishery Unit:
J. A. McCann
R. J. Reed

Construction and utilization of small artificial ponds in Massachusetts has increased rapidly during the postwar period. Fishery management policies of these ponds have been based on data obtained from studies outside the general New England area. This study is designed to increase our present knowledge of the importance of small artificial ponds as a source of recreation in Massachusetts and to develop fish management policies for these ponds. The project will be divided into three phases:

Phase I. To locate, enumerate and classify by type artificial ponds in Central Massachusetts.
Phase II. To select representative ponds and conduct detailed seasonal limnological studies.
Phase III. To establish experimental ponds and evaluate various management policies formulated through the findings of the first two phases.

Wildlife Biology

Influence of Nutrition on the Eye-lens Growth Curve in Relation to Age

F. Greeley

The growth of the eye lens has been used as a means of determining the age structure of several populations of wild mammals. In this study the proposal that nutrition influences the age-growth curve of the lens was examined in the Wistar strain of laboratory rats. Reductions to one-half of normal intake of total feed, protein and energy content did not influence lens growth although body growth rate was severely reduced.

Control of Bird Damage to Small Fruits

F. Greeley

A regional project to study the damage to small fruits caused by birds and to control the depredation. Current activities are directed to

an investigation of the behavior of robins which are among the most destructive birds. Fledgling and adult robins are being tagged, and their movements, eating and resting habits are observed.

Food and Shelter Requirements of the Ruffed Grouse in Relation to Energy Regimes

R. B. Brander

The ruffed grouse will be studied in the field and laboratory to determine its energy requirements and relationships in this respect to habitat.

Wild Turkey Project

Massachusetts Cooperative Wildlife Research Unit:
W. G. Sheldon
B. C. Wentworth
D. K. Wetherbee

Twenty-two wild turkeys were introduced in Central Massachusetts in 1960 and 1961. For several years this project was experimental but in 1965 and 1966 a stable and expanding population has been established.

Woodcock Project

Massachusetts Cooperative Wildlife Research Unit:
W. G. Sheldon
B. C. Wentworth
D. K. Wetherbee

A book gathering together the results of 15 years of research on this game bird at the Unit and also work done on it in other regions will be published by the University of Massachusetts Press in the fall of 1966.

Cadwell Forest Project

Massachusetts Cooperative Wildlife Research Unit:
W. G. Sheldon
B. C. Wentworth
D. K. Wetherbee

A preliminary plan on creating a game management area of the University-owned Cadwell Forest has been completed.

Pulmonary Edema Syndrome of Game Farm Pheasants

Massachusetts Cooperative Wildlife Research Unit:
W. G. Sheldon
B. C. Wentworth
D. K. Wetherbee

This investigation was begun in the fall of 1965 in an endeavor to discover the causes of heavy die-off of Ring-necked Pheasants in the state game farms.

Radio Telemetry Project

Massachusetts Cooperative Wildlife Research Unit:
W. G. Sheldon
B. C. Wentworth
D. K. Wetherbee

As the first phase of this project, radio transmitters were placed on pheasants released by the state to discover survival, mortality and movements of these birds.

Ecology and Physiology of Avian Sterility

Massachusetts Cooperative Wildlife Research Unit:
W. G. Sheldon
B. C. Wentworth
D. K. Wetherbee

Responsive to the acute need for the humane control of populations of sea gulls, starlings and other problem species of birds, we have developed and field-tested the embryocide Sudan Black which is selective to birds and is non-toxic. Chemosterilants that are effective against the production of sperms and eggs of birds are continually being developed and tested. Methods of field application and appraisal have been developed in this pioneer area of applied ecology.

DEPARTMENT OF PLANT AND SOIL SCIENCES

F. W. Southwick, Head

Department Research Program

Research by the Department of Plant and Soil Sciences has both fundamental and applied aspects, but in recent years more emphasis has been placed on basic studies. Such studies are related to recent appointment of well-trained staff plus a marked increase in graduate students since 1963-64. At present, 15 faculty members have major research responsibilities. The areas of emphasis include plant physiology and biochemistry, nutrition, ecology, genetics and plant breeding, soil chemistry and soil stabilization.

Plant Nutrition

Effect of Calcium Salts on Potassium Accumulation by Plant Roots

J. H. Baker
T. Tadano

The roots of many plants accumulate more potassium from solutions containing both KCl and $CaCl_2$ than from pure KCl solutions. In order to obtain a better understanding of this effect, K accumulation by plant roots from KCl solutions is being compared with K accumulation from KCl solutions containing $CaCl_2$ or $CaSO_4$. Evidence has been obtained which indicates that increased K accumulation by barley roots from KCl solutions containing Ca salts as compared to pure KCl solutions is the result of increased anion accumulation rather than to a direct effect of Ca as has often been suggested.

Relationship Between "Maple Decline" and Inorganic Chemical Composition of Sugar Maple Leaves

J. H. Baker

During the recent drought in Massachusetts leaves of many roadside sugar maples have developed a severe marginal necrosis, a "leaf scorch," early in the summer. A study has been underway to determine if the development of these symptoms could be related to the mineral composition of the leaves. The results of this study indicate that the chemical composition of leaves from injured trees is little different from that of healthy trees except that more chloride is present in leaves from injured than from healthy trees, and the chloride concentration in leaves from injured trees is as large as that reported to cause similar injury to other kinds of trees.

The Relationship of Nutrition to Plant Physiological Disorders

D. N. Maynard

Continued research on spinach leaf chlorosis has shown that it is caused primarily by a deficiency of magnesium. Other contributing factors are excess potassium and the loss of magnesium from the spinach leaf by leaching.

The magnesium requirements of corn inbreds F_1, F_2, and backcross populations are being investigated in order to determine the genetic basis for this characteristic.

Ammonium toxicity in tomato has been described. Its appearance may be prevented by suitable potassium concentrations. The role of potassium in ammonium metabolism is being evaluated.

Plant and Nutritional Variables Associated with Ammonium Assimilation

A. V. Barker

The nutritional aspects of ammonium toxicity were studies with special reference to the tomato plant. Ammonium nutrition in soil culture produced a unique stem lesion on tomato plants. To date these lesions have not been observed on other plants under similar conditions, but it is not yet known whether this injury is confined to tomato. Different tomato cultivars show different susceptibilities to ammonium injury varying from nearly complete resistance to extreme sensitivity. Sand culture experiments in connection with soils experiments have shown further that potassium deficiency is induced by fixation of potassium within the clay lattice when ammonium is supplied. The induced potassium deficiency is necessary for lesion development.

Ammonium toxicity is very pH sensitive. Toxicity is lessened at neutral or alkaline pH in the root media. All herbaceous plants tested (includes onion, pumpkin, tomato, peas, corn, beans) will grow on ammonium if the acidity is neutralized. Onion, however, is the most resistant of the plants tested. The ericaceous plants, blueberry and rhododendron, are resistant to ammonium nutrition and appear to grow better on ammonium nutrition than on nitrate nutrition.

Calcium Exchange Between Barley Roots and Clay

M. Drake
J. H. Baker

Relative Ca gains by excised barley roots reacted with Ca-H bentonite depended upon degree of Ca saturation direct contact versus

semipermeable membrane and pretreatment. Rinsing roots in .05 N HCl increased Ca uptake from given Ca saturations and resulted in Ca uptake from lower Ca saturations as compared to untreated roots.

Relationships of Mineral Nutrition to Physiological Disorders of Apples

W. D. Weeks

Foliar sprays of $Ca(NO_3)_2$ applied to Baldwin apple trees increased leaf and fruit Ca and reduced the incidence of bitter pit. Leaf N was not increased by the Ca sprays. The incidence of bitter pit was associated with the level of Ca in both the foliage and the peel of the fruit. There was a highly significant negative correlation between peel Ca and the incidence of bitter pit.

Plant Physiology and Biochemistry

Fruit Carbohydrases

H. V. Marsh

In order to gain some insight into the factors controlling the sudden shift during fruit development in the form of the carbohydrate reserve from starch into soluble sugars, an investigation of the carbohydrases of apple fruit was initiated. Evidence has been obtained indicating at least three starch hydrolyzing enzymes in mature fruit. One of the enzymes was identified as a typical amylase. Work is being continued on the characterization and properties of these enzymes and their activities during fruit development.

Physiology of Low-Temperature Injury on Ornamental Plants

J. R. Havis

Autumnal bark splitting, rapid temperature changes in leaves, low temperature root injury, and foliar desiccation have been identified as specific causes of winter injury to broad-leaved evergreens in northern regions. Various species and varieties have been found to differ in susceptibility to each factor. Environmental and physiological factors contributing to susceptibility and resistance are being studied with the aim of discovering methods for reducing winter damage. This project is partially supported by the Massachusetts Nurserymen's Association.

The Ultrastructure of Chloroplasts Degrading from Metabolic and Physiological Disorders Induced by Ammonium Nutrition

A. V. Barker

Ammonium induced changes in fine structure of tomato leaf chloroplasts are being studied. Functional alterations of the chloroplasts are being related to fine structure.

Post-Harvest Physiology of Apples

W. J. Bramlage

Spectrophotometric techniques for detecting watercore and internal breakdown have been developed. Using these techniques, a definite relationship between these disorders has been found and the biochemistry and physiology of this relationship are being studied. Gamma irradiation produced a rapid loss of watercore and reduced the subsequent development of scald, but increased the incidence of internal breakdown.

Physiological Effects of Growth Regulating Chemicals on Apples

F. W. Southwick

The growth retardant N-dimethyl amino succinamic applied to bearing apple trees following young fruit abscission inhibits fruit growth rate, markedly reduces preharvest fruit abscission, delays the rate of fruit softening, may improve anthocyanin development, may delay watercore development and reduces storage scald of some cultivars. Possibilities of using this compound to extend the harvest season of McIntosh and thereby alleviate the harvest labor problem for commercial orchardists, as well as providing the consumer with apples having superior keeping quality, make continued study of this chemical desirable. This project is supported in part from funds of the Horticultural Research Center and the U. S. Rubber Company.

Temperature Effects on Fructosan in Orchardgrass (Dactylis glomerata)

M. Drake
W. G. Colby

Dormant clones of orchardgrass transplanted in March from the field into 6-inch plots, were placed in growth chambers at 60°F, 70°F. and 80°F. with a 16-hour day. During the initial 10 days, 80°F. produced most vigorous growth, but then vigor declined. After 15 days, growth became vigorous at 60°F. and was superior after 30 days. Fructosan in basal tissue after 30 days was 11, 25 and 30%

for 80, 70 and 60°F., respectively, confirming field observations that carbohydrate reserves in orchardgrass (as indicated by fructosan) remain low at air temperatures above 70°F.

Plant Genetics and Breeding

Genetic Interrelations of Six Yellow-Green Mutants of Tomato

W. H. Lachman
I. delaRoche

The inheritance of yg_1, yg_2, yg_3, yg_4, yg_5, and yg_6 chlorophyll-deficient mutants was found to be genetically controlled and were non-allelic. F2 repulsion data from double intercrosses of all these mutants indicated that they assorted independently, except possibly yg_2 and yg_4. In all cases, the double recombinant mutants appeared to be more chlorophyll deficient than either of their parents.

Heat Treating Seed of T-Cytosterile C13 Sweet Corn

W. H. Lachman

Heat treatment of dry seed at 82.5-90°C. for one to four days was lethal. Seed held at 72-80°C. for one to ten days gave rise to plants with a high incidence (75-100%) of Japonica stripping. Neither treated nor control plants shed pollen.

Chemical Evaluation of Tobacco Types and Fermentation Patterns

R. A. Southwick

In an attempt to better understand tobacco fermentation patterns, plants were grown at high populations. Quality of primed leaves indicated a fine quality of leaf at moderately high populations, but became tender in very high populations. Mechanically harvested and dehydrated leaf fragments are now being fermented to determine the effect of plant populations and fermentation patterns. Sponsored by Consolidated Cigar Corporation.

Weed Ecology

Ecology of Echinochloa crusgalli (L.) BEAUV.

J. Vengris

The response of barnyard grass to atrazine treatments was investigated. The effect of atrazine on the plant was found to be variable and

dependent on the stage of plant development. Cytological studies have been initiated to follow the anatomical changes of barnyard grass treated with atrazine. Electron microscope procedures in studying chloroplast grana changes were worked out and used. The majority of the granal compartments and interconnecting fret system are affected. This effect has been observed at concentrations as low as 5 ppm within eight hours after treatments. At this time the plants have no morphological symptoms of atrazine injury.

An analytical procedure for the qualitative and quantitative detection of atrazine with gas chromatography and isotopes will be used.

Soil Stabilization

Roadside Slope and Sand Dune Stabilization

J. M. Zak

The purpose of the Massachusetts Roadside Development Program was to seek and evaluate methods of slope stabilization on roadsides. Seed mixtures, rate of seeding and roadside turf maintenance have been evaluated for Massachusetts soil and climatic conditions. A special problem related to dune stabilization on Cape Cod has resulted in new techniques for planting and establishing beachgrass for the control of drifting sand. Various other grasses have been successfully established from seed for controlling moving sand. Supported by funds available from the Massachusetts Department of Public Works and the Bureau of Public Roads.

Soil Chemistry

Adsorption of Pesticides by Soils

J. H. Baker
Young-Oh Shin

The extent of adsorption of pesticides on Massachusetts soils and the rate these compounds can be expected to leach from the soil and contaminate ground water are being studied. Preliminary results indicate that the herbicide, atrazine (2-chloro-4-ethylamino-6-isopropyl-2-triazine) is adsorbed mainly by the soil organic matter. Water Resources Research Center (WR-8).

DEPARTMENT OF VETERINARY AND ANIMAL SCIENCES

T. W. Fox, Head

Department Research Program

Research activity in the animal sciences has continued to be one of the major areas of departmental emphasis and effort. The year 1964-65 has been a highly productive one with 35 publications prepared and published since July 1, 1965.

The research program has benefitted from the growth in the graduate program by providing bright young scholars to assist in the conduct of research and to contribute creative ideas to many of the basic problems involved in these studies. The post-doctoral scholars have also made a significant contribution to research and have assisted the graduate faculty in launching the beginning graduate students on their thesis research.

The research program of the department is continuing to concentrate on the basic discipline areas of the animal sciences.

Animal Diseases

Infectious Diseases Affecting Reproduction in Cattle with Emphasis on Leptospirosis and Viral Diseases

R. E. Smith
Iona M. Reynolds

Studies on experimentally produced leptospiral infection in ruminants and the subsequent effect on abortion. A fluorescent antibody technique for the identification of leptospiral infection has been developed for use in experimental studies and in diagnosis. Supported by Regional Research Funds, U.S.D.A. and the National Institutes of Health.

Salmonellosis of Poultry

G. H. Snoeyenbos
H. Van Roekel
C. F. Smyser

Methods of detecting Salmonella in poultry and poultry products. Determination of the time and temperature necessary to kill Salmonella in feeds. Studies of the virulence and dynamics of infection of Salmonella in chicken flocks. Supported by Hatch funds, National Institutes of Health, and industrial grants.

Avian Lymphomatosis

M. Sevoian
R. Larose

Determination of the pathogenesis and epizootiology of neurolymphomatosis including the study of the etiologic agent through growth in chicken embryos, young chicks and in tissue culture. The isolation of the JM virus responsible for an acute form of lymphomatosis in chickens represents a significant contribution of this project. Characterization of the virus and the feasibility of developing a vaccine is being continued. Supported by Hatch funds and industrial grants.

Respiratory Diseases of Poultry

H. Van Roekel
Olga M. Olesiuk
R. Bowen
D. Roberts

Studies on the modes of transmission of Mycoplasma gallisepticum with emphasis on egg transmission and direct or indirect contact under different environments. Investigations on the response of Mycoplasma gallisepticum to medication and the feasibility of eradication of the disease from poultry breeding flocks. Egg transmission has been shown to occur, the latency or carrier state of the organism following infection has been determined and eradication has been shown to be a feasible method of control of the disease. Supported by federal funds, the Massachusetts Society for Promoting Agriculture, and industrial grants.

Animal Genetics

The Genetic and Environmental Aspects of Total Solids, Solids-Not-Fat and Its Components in Milk

S. N. Gaunt
F. N. Dickinson

Studies to determine the repeatability and heritability of milk constituents and the genetic and phenotypic correlations between milk constituents and milk yield in dairy cattle. A detailed study of the environmental factors affecting milk composition and the laboratory methods for the determination of milk composition. Reliable estimates of heritability for these traits have been established and laboratory methods for the determination of milk composition have been developed. Supported by Hatch funds and industrial grants.

The Performance of Populations of the Domestic Fowl as Influenced by Heritable Physiological Traits and by Genes with Known Pleiotropic Effects

J. R. Smyth, Jr.
T. W. Fox

A study of the pleiotropic effects of certain genes influencing melanization and morphological traits in the domestic fowl. The gene for rosecomb has been shown to drastically reduce the viability of gametes produced by homozygotes. Recessive white reduces growth rate and a series of alleles concerned with melanization affect viability. These studies are being extended using the JM virus to determine if the differential mortality observed is associated with genetic resistance to leucosis. Supported by Hatch funds and industrial grants.

Genetic and Physiological Components of Reproductive Ability in Turkeys

J. R. Smyth, Jr.

A study of the effects of sexual maturity on egg production, broodiness, fertility, hatchability and poult size. This investigation is also studying the possibility that genes carried by individual male gametes influence their subsequent survival and fertilizing capacity in the female reproductive tract. Supported by Hatch funds.

Animal Physiology

Pituitary and Ovarian Function in Relation to Fertility

D. L. Black
W. McDaniels
G. Currie

An investigation of the role of the pituitary gland and hypothalamus in ovulation and corpus luteum formation and function. Histological and Histochemical studies of the corpus luteum have been completed through the entire bovine estrus cycle. In addition, the physiology of the uterus and oviduct in the fertilization process and embryo survival is actively being investigated. Supra-ovulation in swine has been observed as a response to X-irradiation. Supported by Regional Research funds (Hatch), National Institutes of Health, Population Council, and the Atomic Energy Commission.

Thyroid Physiology in Chickens and Turkeys

W. J. Mellen
T. Komiyama

A study of the value of plasma PBI^{131} level as a criterion of thyroid state in chickens and turkeys. An endocrine physiology survey of two lines selected for early rapid and slow rate of growth has been completed during the year. Supported by federal funds (Hatch).

Animal Nutrition

Endocrine Physiology Associated with Nutritional-Environmental Interactions in Chickens, Turkeys and Japanese Quail

D. L. Anderson

A study of the value of Se-75 uptake by parathyroid tissue as an assay of calcium metabolism in avian species. This research includes the effects of modified environments on calcium metabolism and on parathyroid and adrenal function. Supported by federal funds (Hatch).

Ruminant Digestion and Fatty Acid Transport Through the Rumen Wall

S. J. Lyford
H. Fenner
D. L. Black

Determination of the effect of increased nitrogen fertilization of forage on rumen fermentation. A study of pectin digestibility, the sites of pectin digestion and pectinase enzymes. An isolated rumen pouch technique has been developed that will allow the perfusing of the rumen pouch to measure fatty acid absorption through the rumen wall. Supported by federal funds (Hatch).

DEPARTMENT OF ENTOMOLOGY AND PLANT PATHOLOGY

M. A. McKenzie, Acting Head

Plant Virology

Effects of Virus Infections on Susceptibility of Plants to Fungi

G. N. Agrios

Significantly greater numbers of fungus infections on virus-infected than on virus-free apple trees observed in the field suggested a positive correlation between infections by the two types of pathogens. Experiments involving combination of three pathogenic fungi and four viruses indicated that some fungi grow considerably better on tissue extracts from virus-infected than from virus-free tissues. The differential growth is, in some cases, striking enough to allow diagnosis of the virus infection by observation of the type of fungus growth, suggesting the possibility of using certain fungi as indicators for virus infections of plants. Greenhouse experiments are presently underway to determine whether such virus-fungus interrelationships exist on the plants as well as on plant tissue extracts.

Relationship of Viruses to Maple Decline

G. N. Agrios

Transmission experiments are being carried out in the field and in the greenhouse to determine the presence and importance of viruses in the development of the so-called "decline" condition of sugar maples found in woodlands. Appropriate plant parts obtained from sugar maple trees exhibiting typical decline symptoms are being tested on some known and several potential virus indicators, including tree varieties, tree seedlings and herbaceous plants, for virus symptom expression. Further studies on the viruses and their effects on sugar maples will follow once the viruses have been obtained.

Fruit Russet Ring and Leaf Flecking Virus of Apple

G. N. Agrios

This extremely destructive virus was found for the first time in the United States in two orchards of this state. It was found on McIntosh, which is the most popular apple variety in New England, and on which it causes reduction of fruit size and unsightly blemishes on almost 100% of the fruit of infected trees. The virus seems to be transmitted only through vegetative propagation or through contact of vegetative parts. Histopathological studies indicate that the virus affects the size, shape, orientation and contents of certain cells of

the apple fruit. In the leaf the virus affects chlorophyll formation in spots, results in loss of intercellular spaces and appearance of large and misshapen plastids in the cells. It also reduces the number and size of palisade parenchyma cells which become round rather than elongated and lose their stratification.

Apple and Pear Disorders with Virus-Like Symptoms but as Yet of Unknown Cause

G. N. Agrios

Several distinct types of abnormal symptoms that could be caused by viruses have been observed on various numbers of apple or pear trees in the state. They include:

1. Misshapen trees and fruit and abnormally rough bark of Delicious apple trees.
2. Malformed and abnormal-sized fruit and tree growth of Cortland apple trees.
3. Reduced size and malformation of fruit of McIntosh apple trees.
4. Surface cracking and size reduction of fruit of certain pear varieties.

The possibility of these conditions being caused by viruses is studied through transmission experiments in the field and in the greenhouse.

Etiology of White Pine Blight

W. M. Banfield

The relationship of three agencies to the development of white pine blight was studied in the past year

An undescribed species of Hypoderma has been found correlated with a characteristic chocolate-brown blight and needle-cast phase of this disease complex. Spore fruits of this fungus were collected in 1964 from diseased trees in Massachusetts, Virginia, West Virginia, and North Carolina. Similar collections were obtained in 1965 from Pennsylvania, New York, and Ontario, Canada. Profuse typical blight of new foliage was induced on some 50 potted white pine seedlings exposed under diseased trees in June and July. Spore fruits of this fungus developed subsequently on the blighted needles of these infected trees. No blight developed on several hundred control trees not so exposed to the fungus.

The profuse yellow spotting, needle casting, and dwarfing of eastern whie pine were associated further with Lophodermium pinastri in the past year. Foliage of susceptible experimental trees exposed only on rainy days developed disease symptoms and subsequently spore fruits of this fungus developed on these diseased needles. New needles of

these trees that were exposed only on clear days did not develop these symptoms and subsequently have not produced spore fruits of this fungus.

Exposure of foliage of susceptible potted eastern white pine to concentrations of ozone normal to the atmosphere of this environment did not develop any symptoms of disease.

Ecological Studies of Maple Decline

W. M. Banfield

Decline of sugar maples is manifest by progressive reduction of leaf area due to marginal scorch, and premature loss of leaves. This leads to early dormany, to die-back of branches, stagheading and death of the trees. The disease occurs in drought years, primarily in the floristic area transitional between the oak, chestnut, and the northern hardwood forest area in which sugar maple is a dominant species. The disease occurs primarily on roadside trees, on trees from which leaf litter and ground cover have been removed and the ground compacted by traffic, on trees growing in shallow soils, trees suddenly exposed by the felling of surrounding trees, and on trees with extensive root injury. Comparable decline occurs also in this area on ash, beech, oaks, elms, and hemlock, and in each case is closely correlated with adverse environment. Sugar maple decline appears to result from adverse environment in which increasing stress for soil moisture is the dominant etiological factor.

Research in progress is designed to: (a) correlate a variety of ecological parameters with the water economy of declining trees; (b) to correlate these with changes in the internal economy of declining trees; and (c) to study the relationship between degeneration of the root system and the decline syndrome.

Forest and Shade Tree Entomology

Relationship of Insects to Current Decline of Maples in Massachusetts

W. B. Becker

The current maple decline in Massachusetts, not along highways, seems most closely associated with drought and harmful conditions brought about by man. To date, no primary insect has been involved. However, in artificial defoliation tests, started two years ago, to simulate the harmful effects of insect defoliation, more deaths or loss of the tree's vitality resulted from removing leaves: (a) in the spring than in midsummer; (b) in shaded rather than in sunny locations; and (c) twice a year rather than once. Complete defoliation of an individual branch on a large tree seemed to result in more damage or mortality to the denuded branch than resulted from the complete

defoliation of small saplings. Observations on the effects of repeated defoliation by the saddled prominent are incomplete. Research is supported by Federal McIntire-Stennis funds.

Effect of a Systemic Insecticide on Twig Feeding by Insect Vectors of Dutch Elm Disease Fungus

W. B. Becker

Injections of Bidrin into the sapstream of American elm trees has given relatively slight, short-term reduction in the number and extent of feeding punctures chewed into twigs by the smaller European elm bark beetle, the chief insect vector of the Dutch elm disease in the United States. In nature, fungus infections may result from such feeding over a longer period of time than protection was obtained. The study has been done under an Extension Service project. Recently the Shell Chemical Company allotted funds for work.

Phenological Studies

W. B. Becker

Relationships between the seasonal development of certain shade trees and their insect pests have been studied for several years in attempts to determine if a relationship exists between them which might be used to predict, more accurately than a calendar date, the proper time to apply various control measures. To date, a few such relationships have seemed fairly constant, not only between an insect and its host but also between an insect and certain other plants. This study is being conducted on an Extension Service project by our own personnel and also by cooperators in the Massachusetts Department of Natural Resources.

Shade Tree Laboratories

Pathology of Tree Wilt Diseases.

F. W. Holmes
M. A. McKenzie
J. S. Demaradzki

Resistance by the host plant to the Dutch elm disease fungus is being studied. About 3% of the seedlings grown from elm seed irradiated with thermal neutrons at Brookhaven have survived their first inoculation with Ceratocystis ulmi. A few of these trees had no twig die-back; they lost many leaves from the shock of infection. Crosses were made between elms at Cornell that had survived past infections; the seedlings are growing at Amherst. Both irradiation and crossings are being continued; a clone garden of resistant trees has been started. Our standard, disease-susceptible clone of Ulmus americana was offered to other researchers for control evaluations; requests

for it have been received from several laboratories in the United States and Canada.

Maple Decline

F. W. Holmes
R. F. Farrington

Mr. Farrington (graduate student) has isolated many microorganisms from diseased maple tissues, including frequent bacteria. He has taken special courses which are helping him identify the bacteria. He has started efforts to induce artificial drought around roots of some of the maples he will inoculate with these microbes. A bulletin of 87 typed pages and 40 figures on culture, diseases, injuries, and pests of maples in shade and ornamental plantings was written and submitted on request. Measurements were made on survivors of 40 maples planted too deep in 1961. Artificial girdling roots (steel) were installed on 20 maples and 20 check trees were assigned.

Study of Fungus and Insect Pests of Trees in Massachusetts

M. A. McKenzie
F. W. Holmes

Evaluation of Shell's "Bidrin" (cooperation of state and town agencies) indicated it did not control Dutch elm disease under Massachusetts conditions. This agrees with research of Chater (Massachusetts), Becker (Massachusetts), Neely (Illinois), and Lincoln (USDA, Ohio) but not of Thompson (Kansas) or Norris (Wisconsin). A 12-page analysis was submitted on 8,574 diagnoses of tree troubles (excluding Dutch elm disease) including 1,004 performed in 1965. Biopsy and diagnosis continue. Foliar chloride was found to be a better indicator of salt injury in maple trees than foliar sodium or sap constituents. Salting of plots continues.

Ecological Investigations

Environment Manipulation and Mosquito Populations

T. M. Peters

This study of the ecology of floodwater mosquito larvae has evolved into two aspects: (1) the investigation of basic ecological factors and their effects on larval mosquito populations under laboratory conditions; and (2) a study of sampling techniques applicable to naturally-occurring larval populations.

Basic Ecological Factors. In the first aspect we are currently investigating the space, food, and intra-, and interspecific

requirements and limitations of mosquito larvae. In comparing two important species, Culex pipiens and Aedes aegypti, we have found them to have similar space and food requirements, but markedly different light requirements, which has an important effect on the second aspect of the study.

Sampling and Sampling Techniques. An investigation into a new use of vital stains as a method of tagging mosquito larvae for analysis of population and sampling techniques is under investigation. As reported at the Northeastern Branch of the Entomological Society of America, the technique is useful both as a basis for analyzing mosquito populations (including dispersal and total numbers) and as a tool to investigate biological control agents.

The effects of vital stains on tagged larvae is being studied on various levels including the histochemical, histological, physiological, and ecological aspects in order to evaluate the accuracy and limits of the tool as a sampling technique.

Plant Nematology

R. A. Rohde
J. R. Acedo
B. D. Bhatt
C. DiSanzo
W. Knox
Chia-ling Pi

Respiratory Behavior in Tylenchidae

A Cartesian Diver ultramicro-respirometer has been constructed and permits respiration measurements on nematodes which weigh less than 0.1 ug (10^{-7} g). Variations in osmotic pressure, carbon dioxide concentration, moisture, and temperature have been found to influence respiration markedly. Of particular interest have been studies on those nematodes which exhibit anabiosis and will live in "suspended animation" for several years, since they are able to respire well at 40 atmospheres of osmotic pressure.

Resistance in Tomato Varieties to Root-Knot and Lesion Nematodes

R. A. Rohde
J. R. Acedo
B. D. Bhatt
C. DiSanzo
W. Knox
Chia-ling Pi

Tomato varieties resistant to root-knot nematodes accumulate large quantities of chlorogenic acid (CA) in the area of nematode feeding. Subsequent oxidation of CA and polymerization to melanins result in a necrotic lesion and the nematode dies. This does not occur in susceptible varieties. Leson nematodes readily penetrate the endodermis of susceptible roots, but are confined to the cortex in resistant roots. The influence of CA on nematode behavior and development is being studied further.

Phenolic Compounds Associated with Lesion Nematode Injury

R. A. Rohde C. DiSanzo
J. R. Acedo W. Knox
B. D. Bhatt Chia-ling Pi

Carrot, cabbage and tobacco seedlings have been inoculated aseptically and the phenolic compounds which accumulate in lesions are being studied by chromatography and spectrophotometry. Several new compounds, which di not occur in healthy plants, have been partially identified. In resistant tobacco varieties, those few progeny which reach maturity have been found to exhibit morphologic changes. For example, lesion nematodes normally have one ovary, but those which develop in tobacco often have two ovaries. Attempts are being made to isolate those compounds responsible for these changes.

Nematodes Associated with Maple Decline

R. A. Rohde C. DiSanzo
J. R. Acedo W. Knox
B. D. Bhatt Chia-ling Pi

A survey of healthy and declining maples throughout the state has shown that certain nematodes are m ore commonly found around declining maples. Populations have been isolated and used to inoculate various-sized maples in greenhouse and growth chamber studies. The possibility that these nematodes may vector a virus is being explored.

Entomology

Pesticide Residues in or on Raw Agricultural Commodities

F. R. Shaw

We have in process or have determined the rates of disappearance of seven pesticides currently being investigated for the control of the alfalfa weevil. Residues of Ronnel and Vapona in the flesh of poultry and in eggs have been determined.

Forage Crop Insects in Massachusetts with Particular Emphasis on the Alfalfa Weevil

F. R. Shaw

Investigations of the role of parasites of the alfalfa weevil have shown that two of the five species of introduced parasites are well established in parts of the state. Both Bathyplectes and Tetrastichus attack larval alfalfa weevils. The relatively high percentage of

paratism by Tetrastichus indicates the possibility that this parasite may be better synchronized in Massachusetts than in Maryland or New Jersey.

Investigations of Losses of Honeybees from Applications of Pesticides and from Bee Diseases, and Methods of Reducing Such Losses

F. R. Shaw

In some areas of the United States 2-hydroxy-n-octyl sulfide has been recommended as a material to repel bees from crops treated with pesticides. Under our conditions this material had no value as a repellent to solitary bees and little value as a repellent to honeybees.

Some beekeepers have claimed bee losses resulting from insecticidal fogs applied for mosquito control. A Naled fog applied at a temperature of 60°F. had no measurable effects on nucleii or colonies of bees.

Comparative Analytical Methods for the Detection of Ronnel or Releated Toxic Residues in Chicken Eggs

R. A. Callahan

Three methods of analysis for ronnel (O-O-dimethyl-O 2,4,5 trichlorophenyl phosphorothiate) were used to determine the presence and disappearance of ronnel in yolks of chicken eggs. Tests for toxic metabolites of ronnel were also tested. The techniques of analysis involved colorimetric, gas chromatographic and bio-assay using the brine shrimp, Artemia salina (Leach). The comparative value of each of the methods is presented.

A Study of Certain Factors Influencing Oviposition by the Alfalfa Weevil, Hypera Postica Gyllenhal

M. C. Miller

The study of stem size and age in relation to oviposition preference by the alfalfa weevil indicates that fresh growing stems of up to 3.3 millimeters in diameter are preferred.

Oviposition preference tests on four varieties of alfalfa and a control variety indicated a marked resistance by two varieties to oviposition. It was determined that fall oviposition played little role in the spring alfalfa weevil infestations and that alfalfa weevil eggs did not overwinter in Western Massachusetts. The spring infestation is, therefore, due to oviposition by overwintering adult weevils.

Host Preferences of Mosquitoes

R. G. Means

Host preferences of mosquitoes were determined in Suffolk County, New York, by exposing test animals in a new type of mosquito trap. The data obtained were analyzed using the "t" test. It was demonstrated that some species had significant host preferences whereas others fed readily on a wide range of hosts.

The Ecology and Biology of the Blackflies of Western Massachusetts

F. G. Holbrook

Intensive collections of blackflies have been made in the four western counties of Massachusetts. At least twenty-two species of these insects have been caught. Observations on the distribution and ecology of blackflies have been recorded. In one locality a pure culture of Simulium vittatum Zett has been found and a year-long study of the population dynamics of this insect has been made.

Mosquito Taxonomy

Marion E. Smith

Studies on the comparative morphology of early instars of the larvae of one of the common snow-pool mosquitoes, carried on as a master's degree problem by Duncan MacKenzie, show that certain characters appear to be indicative of the instar to which they belong. Most mosquito identification in the past has been based upon last instar larvae alone, hence any aid in positive identification of younger larvae is a valuable contribution in this economically important group of insects. Continuation of this research will include similar studies with other species to determine the universality and reliability of these characters. Other aspects of mosquito taxonomy, both adult and larval, are also in progress.

COLLEGE OF AGRICULTURE

PUBLIC SERVICE

PROGRAMS

1965-66

COOPERATIVE EXTENSION WORK

Cooperative Extension work is a voluntary out-of-school system of education for adults and young people.

Its objectives are --

to lessen the lag between discovery of knowledge and its useful application;

to spur the development of the individual, the family, the farm, the firm, the group and the community.

Its method is to plan programs with its participants, basing these programs on current problems and needs and developing their substance from the relevant disciplines of the University.

In Massachusetts Cooperative Extension work is an arrangement entered into by the federal government through the United States Department of Agriculture; by the State through the University of Massachusetts; and by the counties through the Trustees for County Aid to Agriculture in the Counties of Barnstable, Berkshire, Dukes, Franklin, Hampden, Hampshire, Middlesex, Plymouth and Worcester, and through the Trustees of the County Agricultural Schools in Bristol, Essex and Norfolk Counties.

PROGRAMS IN COOPERATIVE EXTENSION WORK

Development of Human Resources

Educational programs are conducted with families and members of families designed to improve social well-being and adjustment to social, and economic changes. Opportunities for human development and improved human relationships within the family and within the community are emphasized.

Educational programs designed to foster beneficial physical, mental and emotional development of youth are conducted through a voluntary youth leader system. These programs offer a variety of learning and training situations providing youngsters opportunity for leadership development, career exploration, understanding the natural world of plants, animals, land, water, air and the opportunity to acquire knowledge and skills in agriculture and home economics.

Improvement of Human Nutrition and Consumer Satisfaction

Educational programs are conducted with families and with people as individual workers, as consumers, and as members of society on

nutritional needs; on the selection, preservation, preparation and use of foods; on design, selection, construction, and care of clothing; on housing for the family; on equipment and furnishings for the household; and on the efficient and satisfying use and management of family resources.

Conservation, Development, and Use of Soil, Water, Forest and Related Resources, and the Development of Economies of Communities and Areas

Educational programs of resource description, inventory, conservation, development, management and evaluation of alternative uses and methods of use are conducted with farmers, land owners, conservation commissions, development commissions and many other regional and inter-community groups.

Local factual information including description, inventory and trends is compiled and disseminated to aid in community, county and area economic development and adjustment.

The Protection of Man, Plants and Animals from Loss, Damage or Discomfort Caused by Insects, Diseases, Parasites, Weeds, Fire, and Other Hazards

Educational programs related to the protection of people; to the preservation and protection of man-made resources, crops and crop products, animals and animal products, and forest and related resources are conducted with producers and consumers of these products and resources.

Efficient Production and Quality Improvement of Food and Other Agricultural Products

Educational programs concerned with the biology of plants and animals, improvement of the biological efficiency of plants and animals, increased consumer acceptability of farm and forest products, the mechanization and improvement of physical efficiency and the management of labor, capital, and other inputs to maximize income are conducted with producers, agricultural supply firms, related federal and state agencies, and agricultural organizations.

New and Improved Development and Processing of Food and Other Agricultural Products

Educational programs pertaining to the chemical and physical properties of food and other agricultural products and programs concerned with developing new and improved food and non-food products and processes are conducted with processing firms, manufacturers and processing supply firms, institutional consumers of food and non-food agricultural products, and related federal and state agencies.

Efficient Marketing, Including Pricing and Quality of Food and Other Agricultural Products

Educational programs are conducted with distributors of food and other agricultural products, food service operators, the related supply firms, federal and state regulatory agencies on subjects concerned with identification, measurement and maintenance of quality; improvement of economic and physical efficiency; analysis of supply, demand and price, including interregional competition; and the development of markets, including consumer preference and behavior.

DEPARTMENT OF

AGRICULTURAL AND FOOD ECONOMICS

Farm Business Management Schools

A series of four 5-hour classes (20 hours) for owner managers of dairy farms held in Hardwick, Massachusetts, daytimes, followed by on-farm-laboratory exercises requiring another 10 hours of student time and 8 days of instruction time; 10 attending. Dr. Fuller, Mr. Rhoades, and Mr. Mentzer. November - December 1965

A series of six 5-hour classes (30 hours) for owner managers of vegetable cash crop farms held at West Springfield, Massachusetts, daytimes; 17 attending. Dr. Fuller, Mr. Rhoades, and Mr. Melnick. January 1966

A series of four 5-hour classes (20 hours) followed by 10 hours of on-farm-laboratory classes for dairy farm owner managers held at Spencer, Massachusetts; 15 attending. Dr. Fuller, Mr. Rhoades, and Mr. Mentzer. February 1966

A one day Tax Management and Income Tax Record School for forest owners, Christmas tree owners and foresters held in cooperation with the Extension Forester; 30 attending. Mr. Noyes and Mr. Rhoades.

Dairy Nutrition Schools

A two day, 8-hour course on the principles of dairy cattle nutrition, included principles of rumen physiology, biochemistry, and economic level and substitution. Dr. Fuller, Dr. Gaunt, and Dr. Lyford.

a. Held in Northampton, November 1965; 30 participating.
b. Held in Pittsfield, December 1965; 14 participating.
c. Held at Bristol County Agricultural High School, Segreganset, Massachusetts, January 1965.

Food Distribution Management Seminar

A two day training course for those with management responsibilities in food wholesaling, retailing, and related firms. The course dealt with the application of quantitative techniques, including computer simulation, to the scheduling and supervision of labor and other inputs utilized in retail food firms. Held on the campus, October 11 and 12, 1965; 50 attending. Dr. Leed and Mr. Marion

Produce Management Seminars

Two 2-day seminars conducted in cooperation with the New England Grocers Supply Company of Worcester for retail food store owners

and managers. Included technical and management information and practices concerning the handling and merchandising of fresh produce in retail food stores. Held in Worcester, Massachusetts, January 17-18, 24-25, 1966; 40 attending. Dr. Leed and Mr. Hayes

Supervisory Management Training Program

A three day, 21-hour institute on planning and policy formulation conducted for department managers, supervisors, and other personnel with management responsibility in agriculturally-oriented firms. Held twice during year - once on the Amherst campus with enrollment of 20, and once at Waltham Field Station with enrollment of 17. Dr. Bragg and Mr. Stokes from Nelson, Nicol and Stokes

Financial and Expense Control Workshops

A five day, 30-hour workshop conducted for owners and accountants of dairies in the Northeast. Held twice during year, once in Syracuse, New York with 19 enrolled, and once in Albany, New York, with 23 enrolled. Dr. Bragg taught two of the five-day sessions. Dr. Aplin, Dr. Carpentier from Cornell University, and Dr. Johnston from The Pennsylvania State University taught the other three days.

Management Workshops

A continuing series of one day, 5-hour workshops for owners and managers of dairies. The two groups have met a total of nine times since last July 1, with a total of 24 regular participants. Dr. Bragg

Milk Plant Operators' Seminar

A new series of one day, 5-hour meetings for owners, plant managers and laboratory technicians of dairy plants. The first meeting was attended by 18. Dr. Bragg and Mr. Evans

Costs and Returns of Fruit Enterprises

A clarification of (1) fixed costs, which continue even if production ceases, (2) direct cash costs arising with production, and (3) desired returns or non-cash costs. Explanation of typical cost of production analysis. 1965 series open to Central Massachusetts fruit growers; 20-25 participating in three, 2 1/2 hour sessions every other week. Dr. Crossmon and Mr. Fultz

Business Management Clinics

Background study of the industry and case studies of individual firms provided teaching materials for classroom discussion, examination, and take home study and reference.

a. Northeast Florists' Association School, Boston, Massachusetts, October 31 - November 1, 1965; two parts:
   (1) Management clinic, 3 hours; 50 attending.
   (2) Special follow-up growers' session; 24 attending two, 5 hour periods. Topics included choice of productive combinations, relative resources and demand, clarification of costs and profits, other management goals, pricing alternatives, and relation of individual firms to total industry.

b. Maine Florists' Association, Lewiston, Maine; January 19, 1966; 50 attending.

c. Maine Arborists' Association, Augusta, Maine; March 5, 1966; 85 attending.

DEPARTMENT OF

AGRICULTURAL ENGINEERING

Eighth Annual Agricultural Structures Seminar

A one-day program of lectures and discussions held at Amherst. Attended by 50 builders, materials suppliers, farmstead equipment suppliers, and others engaged in or advisers to those who are engaged in the design and construction of agricultural buildings. Mr. Light, Mr. Collins, and Dr. Clayton

Seventh Annual Power Equipment Seminar

A one-day program of lectures and discussions sponsored jointly by the Extension Service and the New England Association of Power Equipment Retailers. This November meeting was attended by more than 70 retail dealers and manufacturers' representatives from all parts of New England. Dr. Whitney and Mr. Light

Improved Operation of Milking Machines

A series of two, 2-hour classes for dairymen and other milking machine operators. This series was held in March in Worcester, Massachusetts, with a total attendance of 44. Dr. Stern (Veterinary and Animal Sciences), Mr. Evans (Food Science and Technology), and Mr. Johnson (Agricultural Engineering)

Field and Farmstead Forage Handling

A one-day program of lectures relating to improved methods and equipment for handling forage. The meeting was held at Middleboro, Massachusetts, in March and was attended by 25 dairymen and equipment retailers. Mr. Light.

In addition, Mr. Light actively participated in the Dairy Farmers Seminar (Veterinary and Animal Sciences) and the In-Service Training Course on Milk Technology for Milk Sanitarians (Food Science and Technology). Dr. Whitney cooperated with Dr. Lord (Plant and Soil Sciences) in the presentation of a two-meeting series on harvesting aids and harvesting systems for apple growers. Details of these programs have been given by the other departments concerned.

CRANBERRY STATION

Summer Cultural Practices for Cranberries

An afternoon clinic for cranberry growers held at East Wareham, Massachusetts, on July 1. Lectures on the various cultural practices necessary for growing cranberries during the summer months. Attended by 120 growers. Dr. Cross, Mr. Tomlinson, and Mr. Demoranville.

Cranberry Growers' Field Day

One all-day meeting at East Wareham, Massachusetts, with lectures, demonstrations and field trips on August 24, 1965. Attended by approximately 300 growers and held in cooperation with the Cape Cod Cranberry Growers Association. Dr. Cross and the entire Cranberry Station staff

Mechanical Harvesting Workshop

Instruction in the use of mechanical harvesting machinery for cranberries held at East Wareham, Massachusetts, on August 31, 1965. Two, 1 1/2 hour classes. Attended by 84 growers. Mr. Demoranville and technical representatives

Cranberry Club Meetings

A series of two, 2 1/2 hour evening meetings, one in Kingston, Massachusetts, one in Barnstable, Massachusetts, and a three-hour afternoon meeting in Rochester, Massachusetts. Held during February. Lectures on bulk storage, fungicides, new varieties and weather conditions in regard to cultural practices and crop potential. Total attendance 175. Dr. Cross, Dr. Zuckerman, Dr. Deubert, Dr. Pracer, and Mr. Demoranville

Cranberry Club Meetings

Held at same places as above during March. Lectures on insect control, low gallonage sprinklers, weed control, fertilizer practices, pesticide residues in soils and growth hormones. Total attendance 165. Dr. Devlin, Dr. Miller, Mr. Norton, Mr. Tomlinson, and Mr. Demoranville

Spring and Early Summer Cultural Practices for Cranberries

A series of three clinics for cranberry growers held at Hanson, East Wareham, and North Harwich on May 24 and 25. Lectures on the various cultural practices necessary for growing cranberries during the spring and early summer months. Attended by approximately 150 growers. Dr. Cross, Mr. Tomlinson, Mr. Norton, and Mr. Demoranville

DEPARTMENT OF

ENVIRONMENTAL SCIENCES

Gas Chromatography Pesticide Workshop

A three day training program for analytical chemists, biologists, and other professionals concerned with pesticide analysis. Attended by 52 professionals from eight states. Dr. Naegele, Dr. McEnroe, Dr. Lisk (Cornell University), and technical representatives from the F & M Scientific Company

Pesticides, a Contemporary Component of Environment

A one-day symposium reviewing the current progress and posture of pesticide research in Massachusetts. Attended by 25 research and Extension personnel. Dr. Naegele, Dr. McEnroe, and staff

Culture of the Greenhouse Tomato

a. Three one day educational meetings for tomato growers explaining the latest methods of culture. Each meeting attended by 25 growers. Mr. Young

b. One all-day meeting at Waltham with formal lectures on the growth and culture of the greenhouse tomato. Attended by 40 growers and held in cooperation with the Massachusetts Greenhouse Tomato Growers Council. Mr. Young

Florist Field Day

A one-day program of lectures and demonstrations held at Waltham. Professional growers were instructed in new culturing concepts. Approximately 200 attended this meeting. Dr. Butterfield and regional agents

Introduction to Turf Management

A one-day (6-40 minutes) lecture course designed to introduce concepts of turf management to professional managers of turf in industry, parks, playgrounds, cemeteries, and schools. Attended by 89 managers. Held at Waltham. Mr. Fordham

An Introduction to Plant Physiology

A series of six 2 1/2 hour classes for professional flower growers. A course to give an understanding of basic principles and to prepare for advanced investigation. Held at Waltham; 40 attending. Dr. Butterfield

Arborists' Refresher Course

A series of seven 2 1/2 hour lectures for commercial arborists, nurserymen, tree wardens, and state forestry personnel. Lectures covered a variety of subjects to give a broad understanding of the latest materials and methods available. Held at Waltham; 160 attending. Mr. Chater

An Introduction to Plant Nutrition

A series of six 2 1/2 hour classes for professional flower growers. Basic metabolic principles were discussed leading to study of individual chemical elements important in plant nutrition. Held at Waltham; 18 attending. Dr. Rosenau

Environmental Factors Affecting Public & Private Health

"Pollution in the Suburbs" - a course consisting of eight 2 hour lectures and two field trips. A 'Commonwealth '99' offering for health officers, planning board and conservation commission members as well as civic-minded citizens. Designed to give a sound biological foundation to a better understanding of pollutants and their implications. Held at Wellesley in cooperation with the Wellesley Adult Education Program and Wellesley Conservation Council, Inc.; 157 attending from 25 communities and 45 organizations. Dr. Naegele and Mr. Putnam

A Citizens' Forum on Air Pollution

A series of seven 2-hour lectures for those in the Greater Boston area who are concerned with improving their environment. Another 'Commonwealth '99' information-action program to explain the latest research information and action opportunities available. Cooperating organizations: Back Bay Association, Beacon Hill Civic Association, Boston Tuberculosis Association, Massachusetts Horticultural Society, Neighborhood Association of the Back Bay. Held at Horticultural Hall, Boston; 70 attending. Dr. Naegele and Mr. Putnam

Poultrymen's Refresher Course

A one-day program of five one-hour lectures for the professional poultrymen and allied industry representatives. Latest information on poultry health and economics was presented. Held at Waltham; 60 attending. Dr. Faddoul, and Mr. Fellows

DEPARTMENT OF

ENTOMOLOGY AND PLANT PATHOLOGY

New England Aerial Applicator Conference

An, April 1966, afternoon-evening conference covering laws and regulations in New England States, hazards of aerial pesticide applications, review of information obtained at Regional Conference in Ithaca, New York. Participants included 17 pilots, owners and growers, Dr. Wheeler and leaders in Pesticide Education from other New England States

Northeastern Mosquito Suppression and Wildlife Management Conference

A three-day program in April 1966, designed to stimulate interest in greater efforts to coordinate activities carried out in mosquito control and wildlife management operations for greatest benefit for all. Sponsored by National Coordination Committee, the College of Agriculture, several private organizations and federal and state agencies. Attended by 119 professional and nonprofessional from 15 states and Washington, D. C. Dr. Wheeler worked closely with the National Committee in developing the program and chaired the local organization committee.

DEPARTMENT OF

FOOD SCIENCE AND TECHNOLOGY

During the past year several very successful seminars and training sessions were held. Experience to date indicates that these should be continued as very effective department Extension activities.

Psychology of Personnel Management

A series of five 1 1/2 hour classes for Massachusetts school lunch supervisors, at the request of the Massachusetts Department of Education, June 28 - July 2, 1965, Amherst; 104 attending.
Dr. Lundberg

Personnel Management

A series of six 2-hour classes for owners, managers, supervisors, and other personnel with supervisory and management responsibilities in Massachusetts hotels, restaurants, hospitals, and other food service firms, Monday evenings during October and November 1965. Held simultaneously at University of Massachusetts--Boston, and at West Springfield, utilizing a telephone circuit; 123 attending.
Dr. Lundberg, Mr. Eshbach, and Mr. Lukowski

Purchasing Food for Food Service Establishments

A series of eight 2-hour classes for managers, owners and others with responsibilities for food purchasing in a wide variety of food service establishments, Monday evenings during November and December 1965. Held simultaneously at University of Massachusetts--Boston, and at West Springfield, using a telephone circuit; 92 attending. Dr. Lundberg, Mr. Eshbach, Mr. Lukowski, Mr. Wrisley, Mr. Buck, Mr. Hayes, Dr. Potter, plus outside lecturers

13th Annual Food Service Seminar

Cosponsored by Massachusetts Food Service Educational Council and University of Massachusetts held at University, January 26-28, 1966. Program focused on changes that will determine the food service operator's future and included features on convenience foods, equipment, merchandising, legislative developments, and economic aspects. Attendance 190. Mr. Eshbach, member of planning committee, and Dr. Francis, speaker, from University

Ice Cream Forum

January 27-28, 1966 - annual two-day conference for the ice cream industry held at University. Attendance 80. Dr. Potter, Dr. Hankinson, and outside speakers

In-Service Training Course for Milk Sanitarians

A one-week course held at University, November 15-19, 1965, designed to update sanitarians' technical knowledge of milk quality and to introduce the sanitarian to the requirements of the new 1965 U. S. P.H.S. Grade A Pasteurized Milk Ordinance. A loose-leaf reference titled "Dairy Sanitation Manual" was prepared by Mr. Evans. Supported by a $5,925 short term training grant from U. S. Public Health Service. The total attendance of 82, representing all six New England States, consisted of 70 regulatory persons and 12 persons from industry. Dr. Hankinson, Mr. Evans, Dr. Potter, Dr. Stern, plus outside speakers

Food Science Research Seminar

Held at University, January 14, 1966, for and at request of research directors and administrators of General Foods Corporation,Tarrytown, New York, for purpose of reviewing research programs of Department of Food Science and Technology. Attendance 12. Dr. Esselen, Dr. Hultin, Dr. Fagerson, Dr. Francis, Dr. Stumbo, Dr. Levin, and Dr. Nawar

Seminar on Wax Packaging in the Food Industry

Cosponsored by Department of Food Science and Technology and American Petroleum Institute. Held at University, March 22-23, 1966.

Purpose of seminar was to bring executives with research, technical service and sales backgrounds from primary wax producers, and the packaging and food industries up-to-date on applications and uses of wax in food packaging. The 70 people in attendance came from all over the country, including the West Coast, Middle West, and South. Mr. Hayes, Dr. Levine, Dr. Francis, Dr. Potter, Dr. Esselen, and outside speakers

Understanding Cooking

A series of eight 2-hour classes for food service industry personnel, including owners and managers, Monday evenings during March and April 1966, at West Springfield. The principles of physics and chemistry behind many of the food service industry's practices and procedures in cooking were emphasized. Used in the seminar was a book on "Understanding Cooking" by Dr. Donald E. Lundberg, the first programmed textbook on this industry's subject matter; 80 attending. Dr. Lundberg, Mr. Lukowski, Mr. Eshbach, and outside speakers

Color Measurement in Foods

At University, June 22-24, 1966. An intensive course designed to present the theory and practice of food colorimetry, including visual and instrumental measurement of color and color tolerances of foodstuffs; 40 attending from food research organizations. Dr. Francis, Mr. Hayes, Mr. Clydesdale, Mr. Buck, and outside speakers

DEPARTMENT OF

FORESTRY AND WILDLIFE MANAGEMENT

Municipal Watershed Management Symposium

A two-day symposium to point out to municipal watershed administrators responsible for land management policy ways in which forestry may enhance quality and quantity of water yields, and the role of forestry in a total land management program. This symposium, conducted at the University, was reported to be the first of its kind in the United States. One hundred and twenty people enrolled - watershed administrators, professional foresters and University staff from throughout the Northeast. Mr. Noyes, General Chairman; Mr. Bond, Dr. Mader, Mr. Noyes, Program Committee; Dr. Mader and Mr. Noyes, Editors of Proceedings; Dr. Mader, Mr. MacConnell, Mr. Berger, Instructors from University; eight others. November 9-10, 1965.

State-Wide Massachusetts Forestry Field Day

A one-day program of lectures, demonstrations and educational exhibits

designed to show Massachusetts forest landowners the multiple-use potentials of their forest properties--for commercial timber production, recreation, wildlife management, and watershed purposes. Approximately 1,100 people from Massachusetts and neighboring states attended. This event at the Hawley State Forest was organized by Mr. Noyes, General Chairman, assisted by Regional Agent Donald T. Thayer, and foresters of the Massachusetts Department of Natural Resources. July 10, 1965.

Forest Property and the Federal Income Tax

A one day training course at the University for landowners, public and private foresters and county agents concerned with current requirements for forest products tax reporting. Third successive annual course. Eighty-five attendees from the Northeast. Mr. Rhoades and Mr. Noyes. March 21, 1966.

Retail Lumber Merchandising

A one-week course at the University to develop competency in retail lumbermen in sales, engineering, business methods, etc. Thirty attendees from retail lumber firms in New England. Dr. Gatslick. April 1966.

Hardwood Lumber Grading and Measurement Workshop

A one-week course at the University designed to instruct lumber industry representatives with the basic techniques of hardwood lumber grading and measurement. Thirty-five attendees from the Northeast. National Hardwood Lumber Association Inspector, G. Bullard, joined our staff of Dr. Hoadley, Dr. Gatslick, and Mr. Noyes in teaching. May 23-27, 1966.

DEPARTMENT OF

PLANT AND SOIL SCIENCES

The following are all instruction courses given as Extension activity of this department during the past fiscal year.

Turf Conference

A one and one-half day conference for golf course superintendents; park, cemetery and athletic field superintendents; government workers; county agricultural and regional specialists' equipment dealers; pesticide and fertilizer representatives; students; University personnel, and other Extension people from other New England States and the Northeast interest in fine turf. In cluded a series of lectures given

prominent turf specialists from various universities throughout the country, United States Golf Association Green Section representatives, state government and radio personalities involved in weather forecasting. Held at University in the Student Union and at the Hotel Northampton, March 3-4, 1966; 635 attending. Dr. Troll

Grass Identification Workshop

A one-day school for regional and turf specialists involved in turf work. Included grass identification and turf disease identification. Held January 25; 7 attending. Held at University. Dr. Troll

Lawn Establishment Workshop

A one-evening session held in Pittsfield before the Men's Garden Club. Included a lawn establishment demonstration and a question and answer period. Held May 13; 75 attending. Dr. Troll

Corn Production and Management Symposia

Five, two-to-three hour, formal sessions composed of lectures and demonstrations for farmers, technical representatives from industry, government workers, vocational agricultural teachers and University personnel held February 8, 9, and 10 in Bristol, Hampshire, Franklin, and Worcester Counties on latest findings in corn production research; 250 attending (many several sessions). Dr. Weeks, Dr. E. E. Gamble (Guelph, Canada), and Regional Specialists Harrington, Hill, and Corwin.

Liquid and Bulk Blend Fertilizer Workshops and Training Sessions

Nine, two-hour, formal sessions usually of three lectures at the University or in county headquarters and one workshop at a fertilizer plant in Rochdale for University personnel, county and regional specialists, farmers, fertilizer representatives and government workers were held in late February and early March; approximately 150 attending (many several times). Dr. Weeks, Mr. Harrington, Mr. Mentzer, and Mr. Hill

Culture of Major Vegetable Crops

A series of three one-half day, educational meetings dealing with all phases of the culture of three vegetable crops of major importance. Held at Waltham with average attendance of 65 growers and commercial representatives. Instructors were Mr. Thomson, Mr. Young, other staff members, and regional vegetable specialists.

Recent Developments in Fertilizer Technology

A one-day course at Amherst for agents and specialists dealing with crops. Fifteen agents and specialists attended. Instructors were Mr. Rhoades, Dr. Weeks, Dr. Drake, and Mr. Thomson.

Modern Extension Methods

A series of four one-day programs outlining newer concepts in Extension programs for vegetable growers. Held at Worcester for the regional agents working with vegetable growers. All attended all sessions. Instructor was Mr. Thomson.

New York-New England CA Seminar

One all-day meeting to discuss the latest research findings on CA storage of apples. Meeting held at New Paltz, New York, University of Massachusetts and Cornell University cooperating. Attended by 125 people involved in the apple industry as well as professionals from the United States Department of Agriculture, Canada, Michigan, Pennsylvania, as well as New York and New England. Research data were presented by Dr. Zahradnik, Dr. Bramlage, Dr. Lord, Dr. Southwick, Dr. Smock (Cornell University), Dr. Blanpied (Cornell University), Dr. Dewey (Michigan State University), and Dr. Eaves (Nova Scotia).

New England Fruit Meeting

A two-day series of meetings for tree fruit growers in New England at which nutritional, post-harvest physiological, rootstock, growth regulator, pesticidal, mechanical harvesting, marketing, and labor problems were discussed by professionals from New England, Michigan, Pennsylvania, Illinois, Idaho, and the Office of the United States Secretary of Labor. These meetings were held at Suffolk Downs, Boston, January 5-6, 1966, with over 500 in attendance. Dr. Lord, Dr. Southwick, and Mr. Goss (Worcester County Extension Service) were involved in program arrangements.

Winter Fruit Meetings

Six meetings of one-half or one-day duration were held during the winter months. Meetings held at several locations in the state with lectures and demonstrations related to weed control, pruning, varieties, post-harvest disorders of tree fruits, etc. Attendance ranged from 30-100 persons per meeting. Dr. Lord and Regional Agents

Twilight Fruit Meetings

Evening meetings were held at commercial orchards throughout the state from May through August. About 15 such meetings were held at which such topics as insect and disease control, nutrition, weed control, chemical thinning, etc., were discussed. Attendance ranged from 20-90 persons per meeting. Dr. Lord, Dr. Wave, Dr. Gilgut, and Regional Fruit Agents were primarily involved in these meetings.

DEPARTMENT OF

VETERINARY AND ANIMAL SCIENCES

All phases of the continuing education programs with the animal industries of the state have demonstrated a high level of professional accomplishment under the able leadership of our Extension coordinators: Dr. Gaunt, Dairy; Dr. Stern, Animal Diseases; Mr. Grover, Poultry, and Mr. Colby, Livestock. An important element in the success of the program has been in the concept of regionalization of the county staff and the specialized competencies of this field staff. Another highlight of the program has been the initiation of well-designed Extension field studies on problems germane to the animal industries of the area. Many successful courses of instruction were conducted during the year and a list of these is as follows:

Dairy Program

New England Forage Forum

Two days in August 1965 at the University of Massachusetts. Designed to provide advanced dairymen with the latest research and technological developments related to feed production, feed handling and feeding economically. Ten speakers; 290 attended. Dr. Gaunt, Program Coordinator

Dairy Nutrition Schools

Three two-day schools were held, one in Northampton in November, a second in Pittsfield in November, and a third in Segreganset in December at the Bristol County Agricultural School. These schools were designed to provide specific essential information on dairy cattle nutrition and the application in feeding systems economically. Attendance 12, 10, and 20. Dr. Gaunt and Dr. Lyford

New England Dairy Feed Conference

One day session in April in Boston. Requested by feed manufacturers. Designed to present the latest in dairy nutrition and feed processing. Emphasis on complete feeds and feed processing. One hundred attended; instructors were six staff members of the New England Colleges. Dr. Gaunt, Chairman of Conference, and an instructor

Dairy Cattle Type Evaluation School

Two days in July 1965. Held at four farms in Western Massachusetts, Eastern New York, and Southern Vermont. Designed to improve the quality of judging at shows and fairs to reflect more accurately the better cattle and to provide a reservoir of judges (relieving Extension of this task). Enrollment 45. Dr. Gaunt

Northeast Dairy Sire Conference

Sponsored jointly by the New England Colleges and Cornell University, Ithaca, New York, January 1966. Two days of instruction designed to develop a better understanding of the fundamentals of genetics and their application to dairy cattle on the part of Sire Selection Committee members in the Artificial Breeding Associations (ABA's). Enrollment 200. Dr. Gaunt, Massachusetts Extension representative and instructor. Six other instructors from cooperating colleges.

4-H Genetic Course

Six evening sessions held at Concord in winter of 1965-66. Purpose - to provide educational information on genetics of value to 4-H members with animal projects. Attendance 30-70. Mr. S. Alden Helliker, Leader, Middlesex County 4-H Agent. Dr. Gaunt assisted with program and as an instructor. Four other instructors.

A Dairy Cattle Breeding Course

Two days held a week apart; eight hours of instruction in February 1966. For dairymen in Southeastern Massachusetts at Bristol County Agricultural High School. Designed to improve the educational background of dairymen in the principles of genetics, physiology of reproduction and their application to dairy cattle. Attendance 22. Dr. Gaunt, Dr. Dickinson, and Dr. Stern

School of Managed Milking and Mastitis Control

A course with four one-day sessions held over a two-week period. Two were held in a hall for illustrated lectures and two in barns to demonstrate techniques, equipment, and procedures. This school was designed to reduce the losses due to mastitis by providing basic information on the anatomy and physiology of the udder, the maintenance and operation of milking machines, sanitation, and management techniques. Enrollment limited to 25. Almost 100% attendance at every session. Dr. Stern, Dr. Gaunt, Mr. Johnson, and Mr. Evans

Mastitis Control Instruction Meeting

Three one-half-day sessions held in Southeastern Massachusetts in January 1966. Purpose the same as the school cited above; time limited so emphasis given to most important points in illustrated lectures. Attendance 14, 13, and 47. Dr. Stern and Dr. Gaunt

Dairy Farmers' Seminar

Two-day session held at the University of Massachusetts in January 1966. Purpose - to improve the educational background of dairymen to overcome the complex production and processing problems. Attendance 255. Dr. Gaunt, Chairman; 14 speakers, specialists in their areas, from universities and business.

Massachusetts D.H.I.A. Supervisors' Conference

May 10, 1966, all day and evening conference attended by approximately 45 supervisors, their wives and Extension personnel. Three sessions were held. These sessions were devoted to a discussion of the new D.H.I.A. information that will be put out by the Cornell Central Processing Laboratory starting August 1, 1966 and its import for Massachusetts D.H.I.A. programs. Dr. Dickinson, Mr. Carter and Mr. Loomis, Cornell University

Animal Disease

Bovine Breeding School

A series of two 6-hour sessions for dairy farmers. Held at Bristol County Agricultural High School. Demonstrations and lectures on sterility problems in cattle and genetics. Dr. Stern and Dr. Gaunt

Ruminant Nutrition Seminar

A series of two 6-hour sessions for veterinary practitioners and Regional Agricultural Agents. Held at the University of Massachusetts. Subject matters included ruminant physiology, feed additives, minerals, haylage, residues, and ketosis - limited to 30. Dr. Stern; Dr. Moore, U.S.D.A.; Dr. Reid, Cornell University; Dr. Brown, University of Connecticut; Dr. Lyford, and Dr. Gaunt, University of Massachusetts

Mastitis-In-Service Training Course

A series of two 6-hour sessions held one day a week for two weeks. For milk collectors, laboratory personnel, and Regional Agricultural Agents. Held at the University of Massachusetts. Subject matters included lectures and demonstrations on bacteriology, sanitation, milking machine function, and sample collection technique. Dr. Stern, Mr. Johnson, Mr Evans, Miss Mitchell, and Miss McConnell

Mastitis Management

A series of four 4-hour sessions held two days a week for two weeks for dairy farmers and milking machine servicemen - limited to 25. All aspects of mastitis management and control covered. Pioneer Valley Region - Sunderland and nearby dairy farms. Dr. Stern and mastitis team - Mr. Harrington

Mastitis Management

A series of two 8-hour sessions for dairy farmers in Worcester County - limited to 25. All aspects of mastitis management covered. Dr. Stern and mastitis team - Mr. Hurld

Veterinary Radiology

Eight 4-hour sessions in 2 1/2 days for veterinary practitioners and X-ray technicians at the University of Massachusetts. All phases of large and small animal X-ray and fluoroscopy. Both diagnostic and therapeutic aspects explored. Included demonstration in use of varied equipment - permanent and portable - limited to 30 registrants. Dr. Stern and Dr. Barrett, Alabama Veterinary College

Meat Hygiene and Abbatoir Sanitation

Two 2-hour sessions for Peace Corps students going to Bolivia. Basic information on diseases and sanitation of physical plant and personnel. Approximately 40 students - Brandeis University. Dr. Stern

Audio-Visual Aids in Extension Veterinary Medicine

One 2-hour presentation with demonstrations and touring veterinary facilities at University of Massachusetts. Sixteen Madagascar students. Simultaneous interpretation from English into French. Dr. Stern

Poultry Program

Poultry Day

One day held October 20, 1965 at the University of Massachusetts. Purpose - to present the latest information on the production and marketing of table eggs. Attendance 50. Mr. Grover, chairman. Papers by Dr. Fox, Dr. Anderson, Mr. Denison, Mr. Ruggles, Mr. Yergatian, and others

Fitchburg Management Series

Five sessions held monthly, October to March, in Fitchburg. Designed to present information and stimulate discussion among table egg producers and marketers relative to production management, poultry housing, and marketing of product. Average attendance 60. Mr. Grover, Mr. Denison, and others

Southeast Region Business Management Series

Four sessions held September to December 1965 in Plymouth and Bristol Counties. Purpose - to develop business management techniques (budgeting, contract evaluation, etc.). Utilized the workshop approach to problem solving. Average attendance 20. Organized by Mr. Spear. Instructors, Mr. Grover and others

Northeastern Turkey Producers Conference

Two and one-half days held January 17, 18, and 19, at the University of Massachusetts. Purpose - to provide turkey industrymen in the Northeast with the most recent research findings related to breeding, production management, processing and merchandising. Attendance 100 from New England, New York, Pennsylvania, and New Jersey. Organized by Mr. Grover, Dr. Smyth, and Mr. Denison. Instructors, Mr. Grover, Dr. Fox, Dr. Smyth, Mr. Denison, and others

Massachusetts School Lunch Supervisors' Short Course

Three days, held first week in July 1965, at the University of Massachusetts. Purpose - to instruct school lunch supervisors in the procurement, care and preparation of foods. Attendance 150. Mr. Grover instructed session concerned with poultry and poultry products.

Institutional Food Service Managers' Workshop

Weekly sessions held in December 1965. Designed to assist institutional food service operators in the purchase and care of foods. Sessions held concurrently in West Springfield and Boston by telephone Attendance 100. Mr. Grover instructed session on the purchase and care of poultry and poultry products.

4-H CLUB AND YOUTH WORK

State 4-H Conference for 4-H Club Members

A one-week conference conducted at the University of Massachusetts for 350 teen-age 4-H Club members. The conference consisted of lectures, seminars, and discussions relating to career exploration and preparation for employment. Dr. Howes, Mr. Boss, and staff

Senior 4-H Forum

A two-day conference held in Boston for 250 teen-age 4-H Club members. Emphasis was on career exploration through visits to places of employment, institutions of higher learning. Dr. Howes, Miss Howell, and staff

State 4-H Clothing Seminar

A three-day conference with 45 teen-age 4-H girls relating to selection, care, and construction of clothing for girls. Emphasis was placed on economics and materials, both man-made and natural fibers. Seminar was held at the University of Massachusetts. Miss Howell

4-H Horse Leaders Field Day

A one-day program designed to give leaders of 4-H horse clubs training which would improve their local 4-H Club programs. Program content included emphasis on (1) developing and organizing a club program, and (2) new developments in horse husbandry. One hundred adults and teen-agers participated in this program held at the University of Massachusetts. Mr. Boss and faculty from Department of Veterinary and Animal Sciences

Massachusetts 4-H Dairy Show

This three-day program was held in West Springfield for 120 4-H dairy members and emphasized (1) selection of high quality dairy animals, (2) preparation of animals for the show ring, and (3) evaluation of personal accomplishments on the part of each member. Methods included demonstrations, workshops, and personal evaluation. Mr. Boss

4-H Lamb Marketing Program

This program was held in West Springfield, and Hartford, Connecticut, for 50 4-H members and emphasized instruction in (1) market grades and quality of live lambs, (2) market grades and quality of lamb carcasses, (3) consumer demands for meat, and (4) marketing of farm products through modern supermarkets. One-half day session was held in West Springfield, and one-half day in East Hartford, Connecticut. Mr. Boss and Mr. Colby

Seminar - Western Massachusetts 4-H Staff

Six one-day seminars were conducted for nine Western Massachusetts County 4-H Extension Agents. These were held at Northampton. Subject matter included (1) work with low-income youth, (2) organizing Community Action Committees, (3) television as a teaching method, and (4) efficient use of regional staff. Mr. Boss

AID Training Programs for Foreign Extension Agents

a. Rural Youth Leadership - University of Massachusetts. A six-week program carried out for six Kenyan and one Grenadan Extension officers. Program included recruitment of staff, development of course outline, and carrying out teaching responsibility for this program. Course content included (1) administration of youth programs, (2) use of volunteer leadership (including recruitment, selection, and training), (3) teaching methods, and (4) application of theory through development of a youth program for own situation. Mr. Boss and 4-H staff, and School of Home Economics

b. Developing Youth Programs - University of Massachusetts. A ten-day program for four Malawi Extension agents. This course emphasized the planning and evaluation of a youth program to be carried out in Malawi by each of the participants. Mr. Boss

c. Youth Leadership and Effecting Cultural Change - University of Massachusetts. This eight-day program was conducted for three Malawi Extension agents. Program emphasized (1) recruitment, selection, training and use of volunteer leadership, (2) characteristics of peasant cultures, (3) principles of effecting cultural change, and (4) application of (3) to local situation. Mr. Boss

Massachusetts 4-H Agricultural Science Field Day

A day-long conference at the University of Massachusetts attended by 250 high school age young people and adults which demonstrated new scientific developments resulting from recent agricultural research and acquainted participants with the educational opportunities available through the College of Agriculture. Dr. Metcalfe, Mr. Boss, and 25 faculty members from Departments of Agricultural Engineering, Forestry and Wildlife Management, Plant and Soil Sciences, and Veterinary and Animal Sciences

Youth Development Seminars

Six day-long instructional seminars emphasizing techniques and processes in the development of Informal Educational Programs for Youth with ten Extension youth agents from the five southeastern

counties of Massachusetts. Instruction provided in Brockton, Walpole, Segreganset, Lakeville, and Barnstable. Dr. Metcalfe and staff, and faculty of the College of Agriculture and the School of Home Economics

Informal Educational Television Institutes

Six day-long conferences with state and county Extension youth workers throughout New England on the effective use of informal educational television as a means of reaching an increased audience of young people, largely unreached by previous 4-H programs. Dr. Metcalfe and staff

Homemakers Education Institutes

Three day-long institutes for homemakers in Williamsburg, Lee and Northampton concerning the need and the opportunity for the continuing life-long education of individual and groups. Dr. Metcalfe

Seminar on Development of Out-of-School Educational Programs

Two one-day seminars were conducted in Worcester with 11 professional County 4-H Club Agents attending. Emphasis was placed on identifying needs of youth and effective use of volunteer adults in providing educational experiences which will meet these needs. Miss Howell

4-H Educational Program Via TV

A special 4-H TV Science Program was conducted in Southeastern Massachusetts. This program, which consisted of 16 one-half hour telecasts over Station WTEV, New Bedford, demonstrated certain principles of science. Examples of the science fields covered include plants and animals, archeology, physics, microbiology, and chemistry.

Each of the 15,000 Massachusetts young people who enrolled received a manual which they could use as an aid in following the concepts presented on television. A sampling of the audience indicated two-thirds or 20 of the experiments in the manual were completed by the participants.

The program was conducted in cooperation with 81 school systems and Old Colony Superintendents' Association; Superintendent of Schools, Diocese of Fall River; Massachusetts Junior High School Principals' Association; Massachusetts Elementary School Principals' Association; Massachusetts Teachers' Association, and Senior Supervisor of Science, Massachusetts Department of Education. WTEV donated time and technical support.

Urban 4-H Program Development - Springfield

A 4-H program was initiated last fall in the Riverview Housing Project. This program is conducted in cooperation with the Hampden County Extension Service and the Commonwealth Service Corps. The Extension staff is responsible for the immediate supervision of the project and the Commonwealth Service Corps is providing volunteers for local leadership.

Approximately 50 young people are enrolled in a foods and nutrition program, and ten volunteer adults and one paid leader support the program in the project.

Urban 4-H Program Development - Boston

A program to train volunteer adults for 4-H leadership in Roxbury is in progress. The work is being carried out in cooperation with the Roxbury-Dorchester Community Beautification Committee and the Massachusetts Horticulture Society.

At the present time 17 adult leaders and 17 teen-agers are being trained to transform 17 vacant lots in Roxbury to flower and/or vegetable gardens. These leaders are being trained during the summer of 1966 on one of the vacant lots. Each of the 17 leaders is expected to beautify a lot during 1967.

Work With Community Action Committees

Guidance was offered five different communities in developing Community Action Committees. Each of these committees is now incorporated and has received a grant for expanding Office of Economic Opportunity work. The communities concerned are in Hampshire County, Franklin County, Barnstable County, and two in Hampden County.

Specific youth components were developed for Lynn and Malden Community Action Committees.

COLLEGE OF AGRICULTURE

SPECIAL PROGRAMS

1965-66

Community Development Program
International Agricultural Training Program
Civil Defense Training Program
Diagnostic Laboratories

COLLEGE OF AGRICULTURE

COMMUNITY DEVELOPMENT PROGRAM

HIGHER EDUCATION ACT OF 1965 - $60,000.00

Problems of Regional Planning

The inadequacy of traditional isolated socio-political problem-solving procedures by Communities in Urban, Suburban and Metropolitan areas. This program will institute the application of regional and inter-community problem solving by educational programs centering on the technical regional and inter-community aspect of air and water pollution. The educational plan consists of four related programs:

A continuing education curriculum directed at three definable clienteles: the professional civic servant; the semi-professional civic worker; the non-professional citizen with an as yet undefined civic awareness.

A summer workshop program directed to qualified educators to develop technical competence in air and water pollution at the community level in order to develop community based adult education programs.

A consultation service for civic leaders and organizations.

A reference library on community developments for civic leaders and organizations.

INTERNATIONAL AGRICULTURAL DEVELOPMENT PROGRAM

COLLEGE OF AGRICULTURE

UNIVERSITY OF MASSACHUSETTS

July, 1966

Introduction

"Agricultural development is needed in almost every country of the world today. The race between increasing population and mankind's food supply is real and grim. Agriculture is the only way we now know to produce the food on which our very lives depend. To feed the additional millions of people being added to the world's population each year, and to improve somewhat the present inadequate amount of food per person, will require faster agricultural development in the next two decades than almost any country has ever achieved in the past."[1]

Authorities agree that this goal can be attained only through education and research.

International Training

The international training program in the College of Agriculture is conducted in cooperation with the U. S. Agency for International Development (State Department) and the U. S. Department of Agriculture.

Purpose

Its purpose is three-fold:

1. To educate a selected number of promising students from emerging and established nations in the agricultural sciences. These students are presently enrolled in the two-year Stockbridge School, the four-year curriculum, and the graduate school.

2. To train, on a short-term basis (from one week to six months), international participants who occupy supervisory or executive positions in the ministries of agriculture, education and commerce of their respective countries.

[1] Getting Agriculture Moving, Essentials for Development and Modernization, Arthur T. Mosher, Agricultural Development Council, N. Y. Frederick A. Praeger, Publishers, New York, 1966.

3. To assist, under a special contract, the Ministry of Agriculture and the Ministry of Education in Malawi (formed British Nyasaland) in expanding and improving the Agricultural Extension Service; in training native Malawians for teaching and research assignments in agricultural schools; and in providing consultants and lecturers in the agricultural sciences for the newly-established University of Malawi.

Presently on assignment in Malawi are: H. Sidney Vaughan, Extension Organization; Kenneth E. Boyden, Farm Credit; Clarence H. Parsons, Dairy and Animal Science; and Dr. Constantine J. Gilgut, consultant to the Vice-Chancellor of the University of Malawi on curricular requirements for the new College of Agriculture.

Leaving in August for teaching assignments in the University of Malawi's College of Agriculture are Dr. Emmett Bennett and Mr. Evangel J. Bredakis. Two additional lecturers will be furnished in 1967.

Charles W. Turner, who returned to campus in 1965 after two years in Malawi as consultant on Extension, is coordinator of the Malawi project and Director of the College of Agriculture's International Training Program.

Gilbert E. Mottla, Office of the Dean, has been given an additional assignment as Associate Director.

Attachment 1

The College of Agriculture's part in providing qualified nationals for key roles in agricultural development in their native countries is shown in the table below.

INTERNATIONAL STUDENTS STUDYING
FOR CREDIT IN COLLEGE OF AGRICULTURE
1965-1966 (Total 75)

Academic Participants

1. Stockbridge Hall

2	Nigeria	Poultry Science
2	Canada	Plant Science
1	Ecuador	Animal Science
1	Liberia	Fruit and Vegetable Crops
6	Total	

2. B.S. Degree

1	Kenya	Food Technology
5	Malawi	Animal and Plant Science
1	Ghana	Agronomy
1	Cuba	Agricultural Engineering
1	Nigeria	Agronomy
1	Israel	Agricultural Economics
10	Total	

3. Graduate School

India	8	Korea	3
Israel	1	Japan	3
Uganda	1	Mexico	1
Peru	1	Hungary	1
Phillipines	5	West Indies	1
China	16	Great Britain	2
Cambodia	1	Uruguay	1
France	1	Malaysia	1
Australia	1	Italy	1
Canada	10		59 - Total

Attachment 2

PARTICIPANTS IN INTERNATIONAL TRAINING PROGRAM
(Short-Term Basis)

Number	Country	Training
4	Malawi	Extension Supervision
2	Nigeria	Vocational Agriculture
1 (Grenada)	West Indies	Extension Supervision
4	Malagasy	Extension Supervision
6	Kenya	Rural Youth Work
1	Australia	Administration of Stockbridge School
1	Cameroon	Research and Extension
1	Malawi	Agricultural Information Techniques
3	Malawi	Extension Supervision
2	Ghana	Extension Specialists
1	Guyana	Extension Supervision
1	Nigeria	Extension Supervision
7	Kenya	Extension Supervision
4	Malawi	Extension Supervision
3	Zambia	Extension Supervision
1	England	Vegetable Crops
1	England	Food Technology
3	Thailand	Animal Science (Horses)
4	Malawi	Extension Supervision
1	Guyana	Extension Youth Work
1	Brazil	Extension Youth Work
4	Uganda	Extension Youth Work

56 Participants

Attachment 3

MEMBERS OF THE COLLEGE OF AGRICULTURE FACULTY/STAFF WHO ASSIST IN THE TRAINING OF INTERNATIONAL PARTICIPANTS

Donald P. Allan	Fiscal and Budgetary Procedures
Marvin W. Boss	Youth Organization and Program Planning
John H. Bragg	Management and Supervision
John W. Denison	Animal Science
Miss Winifred Eastwood	Extension Home Economics Training
Merle L. Howes	Youth Organization and Program Planning
Curtis A. Johnson	Agricultural Skills (Engineering)
Horace M. Jones (emeritus)	History of U. S. Agricultural Development
Gilbert E. Mottla	Communication and Problem-Solving Techniques
Wassef W. Nawar	Food Preservation and Storage
Richard A. Southwick	Plant Science (Tobacco)
Cecil L. Thomson	Vegetable Crops
Charles W. Turner	Extension Organization and Supervision

Note: Some of the participants are also assigned for varying periods to County Extension Offices throughout the state for training in Extension Work at the County level.

CIVIL DEFENSE TRAINING PROGRAM
July 1, 1965 - June 30, 1966

ANNUAL REPORT

APPROPRIATIONS

Fiscal Year 1963-64 ----- $70,000
Fiscal Year 1964-65 ----- $70,655
Fiscal Year 1965-66 ----- $69,942

PERSONNEL

Harold W. Perkins	Coordinator, UECDTP
Sidney D. Pierson	SMI-CDM Instructor, UECDTP
Virginia Wesoloski	Sr. Clerk-Steno.
Current Vacancy	RMI-RDO Instructor, UECDTP

STUDENTS OR CLIENTELE SERVED

Students participating in this Civil Defense Training Program were representatives from industry, business, state and federal agencies, community school systems and community leaders.

CIVIL DEFENSE TRAINING PROGRAM
July 1, 1965 - June 30, 1966

ANNUAL REPORT

MAJOR ACCOMPLISHMENTS

Over 2,000 people in the State of Massachusetts were trained and/or became knowledgeable as to the needs of Civil Defense as a result of the fiscal year 1966 University Extension Civil Defense Training Program. Training and information regarding Civil Defense needs were imparted by:

CONDUCTING CIVIL DEFENSE TRAINING COURSES IN SHELTER MANAGEMENT, CIVIL DEFENSE MANAGEMENT, RADIOLOGICAL MONITORING AND RADIOLOGICAL DEFENSE.

SHELTER MANAGEMENT INSTRUCTOR. Four SMI courses were conducted during FY 1966. The most noteworthy area of interest in this particular course is the change of attitude of the students from the time they enroll to the completion of the course. An attitude of indifference, a negative attitude, or just plain ignorance, almost without exception changes to a positive attitude and a desire to learn.

Recruiting for this course continues to be a problem, but once students are enrolled, we have experienced a negligible dropout rate.

It is anticipated that continued progress in providing organization capability in community Civil Defense will serve to create more need and greater acceptance for SMI training.

SMI Courses completed during FY 1966:

Location	Attendance	Certified
Mass. CD Training Center, Topsfield	16	15
Mass. CD Training Center, Topsfield	12	12
Cape & Vineyard Power Co., Hyannis	18	16
Mass. CD Training Center, Topsfield	12	12

CIVIL DEFENSE MANAGEMENT. This course was probably the most successful of all courses taught during FY 1966. The large majority of students were

Civil Defense Directors with varying degrees of experience; from completely inexperienced to 10 to 12 years on the job. The feed-back indicated that for the first time the information had been compiled into one "package" for the experienced and gave a broad over-view for the inexperienced. Many of the students immediately applied their newly acquired knowledge to up-date their offices and programs, orient their elected officials, discard antiquated letters, SOP's, etc., initiate action for continuity of government, and compile an up-to-date Civil Defense Guide.

This appears to be such a worthwhile course that in time to come, perhaps consideration will be given to a refresher course containing all the latest policies and procedures and would be offered annually to Local Civil Defense Directors.

CDM Courses conducted during FY 1966:

Location	Attendance	Certified
Ludlow Hospital, Ludlow	16	11
Greenfield Community College, Greenfield	15	13
Mass. CD Training Center, Topsfield	22	22
Sector 1C Hdqrs., Bedford	30	26
Sector 2C Hdqrs., So. Dennis	18	17

RADIOLOGICAL MONITOR INSTRUCTOR & RADIOLOGICAL DEFENSE OFFICER. The RMI program did not attract the number of students desired and special attention is being given this area of training to insure that during FY 1967 attendance and certification goals will be reached.

Action is being initiated in cooperation with the State Radef Officer and four Area Radef Officers, each possessing doctorate degrees in Physics, to form a Massachusetts Radef Association. A one-day Conference will be planned for all RMI and RDO graduates (approximately 300) and in addition to the Conference agenda, election of officers is contemplated for the proposed association. Not only should this action lend credence to the professional capabilities of

current graduates and stimulate continuing interest and activity, but it should also serve to attract qualified personnel in future training programs.

RMI Courses conducted during FY 1966:

Location	Attendance	Certified
North Junior High, Pittsfield	5	5
Mass. CD Training Center, Topsfield	11	7
University of Massachusetts, Amherst	4	4
National Guard Armory, Boston	10	10
DPW District 3, Worcester	28	16 (Refresher)

RDO Courses conducted during FY 1966:

Location	Attendance	Certified
Mass. CD Training Center, Topsfield	7	5
Area 2 Hdqrs., Bridgewater	9	7
National Guard Armory, Boston	8	5

CONDUCTING CONFERENCES FOR SELECTED COMMUNITY LEADERS AND ELECTED OFFICIALS.

Seven formal conferences were conducted during FY 1966. Locations and attendance are as noted below:

Natick Lab., Natick, Mass.	500
Natick Lab., Natick, Mass.	453
Natick Lab., Natick, Mass.	390
Wakefield Motor Inn, Wakefield, Mass.	74
Holiday Inn, Waltham, Mass.	82
Holiday Inn, Waltham, Mass.	50
Lewis Lodge, Taunton, Mass.	556

Each year since the University Extension Program began, more interest in Civil Defense has been manifested at the conferences. Of course, entire communities are not "converted" overnight. Nevertheless, definite inroads are made which have resulted in more support for the Civil Defense Director, such as increased appropriations, more interest in Office of Civil Defense courses and requests for the University staff to appear in other communities, usually in an informal manner rather than a formal conference.

The addition of business and industry conferences in FY 1967 should prove very successful for the overall Civil Defense Training Program.

PARTICIPATING AS GUEST SPEAKERS IN REGULARLY SCHEDULED MEETINGS OF ORGANIZATIONS AND LOCAL GOVERNMENTS.

Participation as guest speakers for meetings not directly related to the scope of the University contract resulted in wide dissemination of information regarding Civil Defense. These endeavors were necessary to insure continuity and greater acceptance of Civil Defense.

Primarily, personal calls, group meetings and correspondence with various organizations were conducted as part of recruiting efforts; however, many times information and education concerning Civil Defense was presented and subsequently led to positive community actions as rewarding as those obtained in performance of official contract obligations.

During FY 1966, over 400 people were contacted in this type endeavor and of particular significance is the fact that these people were 100% action leaders of industry, school systems and communities.

FUTURE PLANS

Continual growth and expansion of services provided by the University is dependent upon widespread acceptance and understanding of need. From observation and by conversation with people throughout the State of Massachusetts, it appears that significant progress has been made in this respect and future programming actions should be successful.

The University contract for FY 1967 will provide the following:

5 Conferences
3 Shelter Management Instructor (SMI)
3 Civil Defense Management (CDM)
3 Radiological Monitor Instructor (RMI)
2 Radiological Defense Officer (RDO)
1 Emergency Operation Simulation Training (EOST)

We look forward to the new EOST phase of training as one that will stimulate interest by community leaders, prove community operational capability

and more fully utilize personnel trained in University programs.

We anticipate expansion of this phase of training either by modification of current or future contracts.

ANNUAL REPORT

of the

DIAGNOSTIC LABORATORIES

COLLEGE OF AGRICULTURE

Department of Veterinary and Animal Sciences

Amherst, Massachusetts

Department of Environmental Sciences

Waltham, Massachusetts

of the

U N I V E R S I T Y O F M A S S A C H U S E T T S

1 9 6 5

This report is presented by the Department of Veterinary and Animal Sciences, Amherst, Massachusetts, and the Department of Environmental Sciences, Waltham, Massachusetts, of the College of Agriculture, University of Massachusetts, Amherst, Massachusetts.

SUMMARY

I. Diagnostic Laboratories

During the calendar year January 1, 1965, through December 31, 1965 a total of 7665 avian and mammalian specimens in 1314 consignments was submitted for laboratory examination. Specimens submitted were as follows:

AVIAN	Amherst	Waltham
Chicken	1330	3859
Turkey	102	483
Pheasant	40	18
Duck	29	25
Miscellaneous (17 species)	743	96
MAMMALIAN		
Cattle	533	
Sheep	20	
Goats	7	
Swine	45	
Horses	79	
Miscellaneous (16 species)	74	20

II. Control Services	Samples Tested
Pullorum Disease Testing	559,006
Mastitis Control Service	49,042

The College of Agriculture provides veterinary diagnostic services at Waltham through the Department of Environmental Sciences and at Amherst through the Department of Veterinary and Animal Sciences. Most of the poultry diagnostic work is performed by the Department of Environmental Sciences at Waltham. Poultry and large animal diagnostic services, as well as control programs are conducted by the Department of Veterinary and Animal Sciences at Amherst. This report presents individually the diagnostic activities of both departments as well as summaries of the control programs.

DEPARTMENT OF ENVIRONMENTAL SCIENCES
Waltham, Massachusetts

REPORT OF DIAGNOSTIC LABORATORY

Chicken Diagnoses (3,859 Specimens)	Number of Diagnoses	0-4 weeks	4-20 weeks	20+ weeks
Acariasis	6			6
Ascariasis	5		2	3
Aspergillosis	2		2	
Avian encephalomyelitis (Epidemic tremor)	13	5		8
Blepharocojunctivitis	1			1
Cannibalism	2			2
Capillariasis (C. obsignata)	28		4	24
Chronic respiratory disease	42	[illegible]	23	19
Cloacitis	1			1
Coccidiosis	78	6	33	39
Colibacillosis	36	11	15	10
Enteritis	11			11
Enteritis, ulcerative (Quail disease)	1	1		
Enterohepatitis	1		1	
Fatty liver	2			2
Faulty husbandry	3		1	2
Formaldehyde toxicity	1	1		
Fowl cholera	5			5
Fowl typhoid	1			1
Gout, visceral	4	1		3
Gumboro disease (nephrosis syndrome)	1		1	
Heat prostration	1		1	
Hemangioma	1			1
Inanition	2	2		
Infectious, bronchitis	8	1	7	
Infectious laryngotracheitis	3			3
Infectious synovitis	22		10	12
Keratoconjunctivitis	7		3	4
Lymphomatosis, neural	56		39	17
Lymphomatosis, ocular	1			1
Lymphomatosis, visceral	148		57	91

Chicken Diagnoses (continued)	Number of Diagnoses	0-4 weeks	4-20 weeks	204- weeks
Molt, physiologic	6			6
Nephrosis	2		1	1
No diagnoses	22	7	2	13
Normal	9	3	5	1
Osteomalacia	2			2
Paralysis, undetermined	1			1
Paratyphoid (11 serotypes)	15	4	8	3
Pediculosis	10			10
Perosis	2	1	1	
Prolapsus	1			1
Respiratory infection	4		3	1
Ruptured gastrocnemius tendon	3		2	1
Salpingitis	2			2
Suffocation	2			2
Sulfaquinoxaline toxicity	8		4	4
Taeniasis	3		1	2
Tendinitis, gastrocnemius	3		1	2
Traumatism	3			3
Vitamin B_{12} deficiency	1	1		
Water deprivation	2	1	1	
Turkey Diagnoses (483 Specimens)				
Ascariasis	1		1	
Aspergillosis	1	1		
Coccidiosis	2	2		
Colibacillosis	1	1		
Enteritis, hemorrhagic	3	1	2	
Enterohepatitis	2	1	1	
Erysipelas	2		1	1
Fowl cholera	2		1	1
Hepatitis, viral	3	1	2	
Hepato-granulomatosis	1		1	
Histostat toxicity	1		1	
Hock disease	1		1	

Turkey Diagnoses (continued)	Number of Diagnoses	0-4 weeks	4-20 weeks	20+ weeks
Enteritis	3	3		
Infectious sinusitis	3	1	1	1
Lymphomatosis, visceral	1		1	
No diagnosis	4	2	1	1
Paratyphoid (7 serotypes)	14	12	2	
Peritonitis	1			1
Proteus infection	1	1		
Staphylococcosis	1		1	
Toxemia	1		1	
Transmissible enteritis	12	6	5	1
Ulcerative enteritis (Quail disease)	1		1	
Vitamin D deficiency	1		1	
Water deprivation	1		1	
Pigeon Diagnoses (28 Specimens)				
Ascariasis	1			1
Neoplasm, undetermined	1			1
No diagnosis	3			3
Paratyphoid	6	1	1	4
Pediculosis	1			1
Respiratory infection	2		1	1
Toxemia	2			2
Traumatism, internal	1			1
Trichomoniasis	1	1		
Duck Diagnoses (25 Specimens)				
Gout, visceral	1			1
No diagnosis	3	1		2
Peritonitis	1			1
Rabbit Diagnoses (20 Specimens)				
Coccidiosis	2		2	
Mucoid enteritis	4		3	1
Paralysis	1		1	
Pregnancy toxemia	2			2
Spirochetosis	1			1
Suffocation	1			1

Pheasant Diagnoses (18 Specimens)	Number of Diagnoses	0-4 weeks	4-20 weeks	20+ weeks
Coccidiosis	1	1		
Colibacillosis	1	1		
Pulmonary edema	1		1	
Syngamus trachea infection	1		1	
Traumatism, head	1			1
Sparrow Diagnoses (20 Specimens)				
Coccidiosis	1			1
Enteritis, hemorrhagic	3		1	2
No diagnosis	4		2	2
Paratyphoid	2			2
Traumatism, head	2		1	1
Cowbird Diagnoses (18 Specimens)				
No diagnosis	3	1		2
Paratyphoid	5		3	2
Coturnix Quail Diagnoses (11 Specimens)				
Faulty husbandry	1			1
Lymphocytoma	1			1
Toxemia	1			1
Traumatism	1			1
Chuckar Partridge Diagnoses (6 Specimens)				
Coccidiosis	2	1		1
Goose Diagnoses (5 Specimens)				
Coccidiosis	1		1	
No diagnosis	1	1		
Trichomoniasis	1	1		
Swan Diagnoses (4 Specimens)				
Fowl cholera	1			1
Gout, visceral	1			1
Nephrosis	1			1
No diagnosis	2			2
Quail Diagnoses (4 Specimens)				
Quail disease (ulcerative enteritis)	1			1

DEPARTMENT OF VETERINARY AND ANIMAL SCIENCES
Amherst, Massachusetts

REPORT OF DIAGNOSTIC LABORATORIES

Chicken Diagnoses (1330 Specimens)	Number of Diagnoses	0-4 weeks	4-20 weeks	20+ weeks
Airsacculitis	2	1	1	
Ascariasis	7		1	6
Autolysis	1		1	
Bluecomb complex	4		1	3
Bumblefoot	1			1
Cannibalism	5			5
Capillariasis	6			6
Cholera, fowl	3			3
Chronic respiratory disease	30		10	20
Cloacitis	1	1		
Coccidiosis	18	1	8	9
Colibacillosis	17		8	9
Culls	1			1
Dermatitis, gangrenous	2		1	1
Encephalomyelitis, avian	3	1		2
Enteritis, unidentified	7	1		6
Erysipelas	3			3
Faulty management	2		1	1
Foot necrosis	1			1
Gumboro disease	1		1	
Hepatitis, avian vibrionic	9			9
Hepatitis, unidentified	2			2
Histomoniasis	1		1	
Impaction, gizzard	1			1
Impaction, intestinal	1		1	
Impaction, oviduct	1			1
Inanition	1		1	
Infectious laryngotracheitis	2			2
Infectious synovitis	11		5	6
Keratoconjunctivitis	1			1

Chicken Diagnoses (Continued)	Number of Diagnoses	0-4 weeks	4-20 weeks	20+ weeks
Leukosis, neural	21	1	11	9
Leukosis, visceral	55	1	18	36
Nephrosis	1		1	
Newcastle disease	1			1
Newcastle disease, immune	1		1	
No diagnosis	11	1		10
Normal	6	1	2	3
Omphalitis	1	1		
Overheating	1	1		
Paratyphoid	8			8
Pediculosis	2			2
Perosis	1		1	
Pullorum disease	1	1		
Pullorum disease called in:				
positive	18		2	16
negative	32			32
Respiratory infection	1			1
Salpingitis	1			1
Staphylococcosis	1			1
Starvation	3	3		
Teniasis	3			3
Toxicity, sulfa	1			1
Tuberculosis, negative	1			1
Turkey Diagnoses (102 Specimens)				
Airsacuulitis	4	2	1	1
Ascaridiasis	1		1	
Cannibalism	1			1
Capillariasis	1			1
Cholera, fowl	1			1
Coccidiosis	2		2	
Colibacillosis	3		3	
Dehydration	1		1	
Enteritis, unidentified	1		1	
Enterohepatitis	1		1	
Erysipelas	1			1
Infectious synovitis	1		1	
Influenza A	1			1

Turkey Diagnoses (continued)	Number of Diagnoses	0-4 weeks	4-20 weeks	204 weeks
Mycoplasma infection	3	1	1	1
No diagnosis	2			2
Omphalitis	1	1		
Paratyphoid	2	1	1	
Staphylococcosis	2		2	
Starvation	1	1		
Unfit for examination	1		1	
Water deprivation	1	1		

Canary (3 Specimens)	Total
No diagnosis	3

Cowbirds (337 Specimens)	
Negative for salmonella	1
Paratyphoid	4

Ducks (2 Specimens)	
New duck syndrome	1

Duck, Japanese stuffed (1 Specimen)	
Negative for salmonella	1

Ducks, White Pekin (17 Specimens)	
Paratyphoid	1

Ducks, Wood (9 Specimens)	
Exposure	1

Goose (1 Specimen)	
No diagnosis	1

Grackles (30 Specimens)	Total
Negative for salmonella	1
Paratyphoid	1
Pox	1
Parakeet (1 Specimen)	
Lipoma	1
Pheasant (40 Specimens)	
Cannibalism	1
Capillariasis	1
Coccidiosis	1
Hepatitis	1
Paratyphoid (pullorum disease called in)	1
Red Grouse (1 Specimen)	
No diagnosis	1
Red-winged Blackbird (43 Specimens)	
Negative for salmonella	1
Starlings (117 Specimens)	
Paratyphoid-positive	1
Paratyphoid-negative	3
Miscellaneous	
Chicken embryos (150 Specimens) - no diagnosis	1
Eggs (4 dozen) - immune to avian encephalomyelitis	1
Feed samples (12 Specimens) - negative for paratyphoid	1

Summary of Salmonella Isolates Obtained from Specimens Submitted to Diagnostic Laboratories at Amherst and Waltham and Those Isolated from Tested Flocks During the Calendar Year 1965

Salmonella	Chickens	Turkeys	Pheasants	Pigeon	Ducks	Misc.[1]	Pigs	Total
anatum	1	2	*	*	1	*	*	4
blockley	1	*	*	*	*	*	*	1
bredeney	*	1	*	*	*	*	*	1
cubana	*	1	*	*	*	*	*	1
derby	*	*	*	*	1	*	*	1
enteritidis	1	*	*	*	*	*	*	1
gallinarum	1	*	*	*	*	*	*	1
give	*	1	*	*	*	*	*	1
heidelberg	5	*	*	*	*	1	*	6
infantis	5	*	*	*	*	*	*	5
montevideo	1	1	*	*	*	*	*	2
newport	1	1	*	*	*	*	*	2
panama	*	1	*	*	*	*	*	1
pullorum	12	*	*	*	*	*	*	12
saint-paul	1	2	*	*	*	*	*	3
schwarzengrund	1	1	*	*	*	*	*	2
thompson	2	*	*	*	*	*	*	2
typhimurium	5	*	1	*	*	8	1	15
typhimurium var. copenhagen	3	1	*	7	*	*	*	11
Totals:	40	12	1	7	2	9	1	72

All isolates are reported on a farm basis. [1]cowbirds, starlings, sparrows

Nine of the poultry salmonella isolations were from out-of-state flocks. S. heidelberg was recovered in chickens twice from New York and once from Maine. S. infantis was recovered from chickens once each from New York and New Hampshire. One isolate of S. typhimurium var. copenhagen was recovered from chickens in Connecticut. One isolate of S. pullorum was from a small chicken flock in Vermont. From one turkey flock in New Hampshire both S. anatum and S. cubana were recovered.

S. anatum was recovered three times from two different turkey farms; S. saint-paul was recovered twice from one turkey farm; and S. typhimurium var. copenhagen was recovered three times from another turkey farm. Both S. montevideo and S. schwarzengrund were recovered from a turkey flock, and in another turkey flock both S. anatum and S. bredeney were recovered. From one group of ducks both S. anatum and S. derby were recovered. In one chicken flock (N.Y.) both S. heidelberg and S. infantis were recovered.

S. pullorum was isolated from brooding chicks on a commercial egg farm; it was also recovered from one of the laying birds on a different premise. S. typhimurium var. copenhagen was recovered from the laying birds. The remaining 10 isolations of S. pullorum were recovered from tested fancier flocks as a result of the regulation that all birds must be tested before being exhibited.

Salmonella (paratyphoid) isolations were made from 4 chicken breeding flocks which reacted to the pullorum antigen. There were 2 isolations of S. typhimurium and one each of S. enteritidis and S. heidelberg. S. typhimurium was recovered from a pheasant breeding flock.

CATTLE

(159 accessions; 533 specimens)

	Diagnoses
Abortion, alpha streptococcus	3
Abortion, *Aspergillus fumigatus*	1
Abortion, beta streptococcus	1
Abortion, *Leptospira* spp. (F.A. technique)	4
Abortion, *Listeria monocytogenes*	1
Abortion, non specific	25
Abortion, twins	2
Abortion, unsatisfactory specimen	1
Arthritis, acute hemorrhagic, alpha streptococcus spp.	1
Calf septicemia (colibacillosis; calf scours)	6
Chronic indigestion	1
Enteritis, non specific	3
Grass tetany	1
Hematology, anemia with eosinophilia	1
Hematology, leucopenia	1
Hematology, neutrophilia	2
Hematology, normal	2
Hematology, lymphocytosis	1
Hematology, unsatisfactory specimen	1
Hematuria	1
Hepatic cirrhosis	1
Mucosal disease	1
No diagnosis	4
Parasitology - negative	2
Pasteurellosis	1
Peritonitis	1
Pneumonia, purulent, *Corynebacterium pyogenes*	2
Poisoning, lead	5
Poisoning, limestone	1
Poisoning, nicarbazin	1
Poisoning, nightshade	1

Cattle (continued)				Diagnoses
Rectal swab, culture - coliform and proteus				1
Serology	Pos.	Susp.	Neg.	Diagnoses
Leptospirosis blood agglutination	8		400	408
Vibriosis mucus agglutination			4	4
IBR serum neutralization	5		47	52
BVD serum neutralization	7		30	37
Shipping fever				1
Stillborn				4
Toxicology - negative				6
Tracheobronchitis, beta streptococcus				1
Tumor Granuloma				1
Unsatisfactory				2
Urine culture - hemolytic coliform				1

SHEEP

(16 accessions; 20 specimens)

Dystocia, ruptured uterus	1
Enterotoxemia	1
Listeriosis	1
No diagnosis	2
Pneumonia	1
Pneumonia, inhalation	1
Pneumonia, purulent, *Corynebacterium pyogenes*	1
Poisoning, copper	1
Poisoning, diazinon (presumptive)	1
Starvation	1
Unsatisfactory	2

GOATS

(7 accessions; 8 specimens)

Eye swab, culture negative	2
Hemonchosis and ear mites	1
Hepatic necrosis and hemorrhage	1
Metritis, coliform	1
Toxicology negative	1

SWINE

(24 accessions; 45 specimens)

Anemia, nutritional	2
Cleft palate	1
Dermatitis, infectious,-etiology unknown	1
Enteritis, necrotic and associated anemia	1
Hemorrhage, hepatic	1
No diagnosis	2
Otitis - etiology unknown	1
Otitis media, *Pseudomonas aeruginosa*	1
Overlaid	2
Parasitology - negative for mites	2
Pneumoenteritis	1
Pneumonia, chronic	1
Pneumonia, purulent, *Pastuerella multocida*	2
Salmonellosis, *S. typhimurium*	1

Serology	Pos.	Susp.	Neg.	
Leptospirosis blood agglutination	3		11	14

Spondylitis	1
Starvation	1
Ulcer, gastric	1
Unsatisfactory	1

HORSES

(41 accessions; 79 specimens)

Abortion, non specific	1
Abortion, *Streptococcus zooepidemicus*	1
Abortion, twins	1
Ascariasis	1
Ascariasis and strongylidosis	1
Cystitis, *Pseudomonas aeruginosa*	1
Hematology, normal	3
Intestinal tympany	1
Joint ill, *Klebsiella spp.*	1
Metritis, *Streptococcus equiruulis*	1
Mycology - negative	4
Pleuropneumonia, *Streptococcus zooepidemicus*	1
Pregnancy test - positive 3, negative 10	13
Ringworm	1
Semen culture - negative for streptococci	1

Serology	Pos.	Susp.	Neg.	
Leptospirosis blood agglutination			3	3

Shigellosis	1
Stillborn	1
Toxicology - negative	1
Unsatisfactory	1

BAT

(6 accessions; 6 specimens)

Rabies - POSITIVE (Mass. Dept. Pub. Health)	2
Rabies - negative (Mass. Dept. Pub. Health)	2
Rabies - Specimen unsatisfactory (Mass. Dept. Pub. Health)	2

CAT

(2 accessions; 2 specimens)

No diagnosis	1
Toxocariasis	1

DEER

(3 accessions; 4 specimens)

Fractured neck				1
No diagnosis				1
Serology	Pos.	Susp.	Neg.	
Leptospirosis blood agglutination			2	2
IBR, serum neutralization			2	2

DOG

(19 accessions; 20 specimens)

Ancylostomiasis	1
Anomaly, anal	1
Hematology, neutrophilia	1
Infarction, hemorrhagic	1
Mycology, negative for ringworm	2
No diagnosis	2
Parasitology, negative	1
Pneumonia	1
Toxocariasis	1
Tumor:	
Adenoma	1
Adenocarcinoma	2
Duct carcinoma	1
Hemangioma	1
Lymphosarcoma	1
Myxosarcoma	1
Squamous cell carcinoma	1

FOX

(3 accessions; 3 specimens)

Culture negative for *Listeria monocytogenes*	2
Fractured skull	1
Ruptured liver	1

GUINEA PIG

(1 accession; 5 specimens)

Lymphadenitis	1

LLAMA

(1 accession; 1 specimen)

Poisoning, lead	1

MINK

(1 accession; 2 specimens)

Viral enteritis and inanition	1

MONKEY

(2 accessions; 4 specimens)

Malnutrition	1
Parasitism and dehydration	3

OCELOT

(1 accession; 1 specimen)

Infectious feline enteritis	1

RABBIT

(1 accession; 1 specimen)

Mononucleosis	1

RACOON

(4 accessions; 4 specimens)

Normal	1
Rabies, negative (Mass. Dept. Pub. Health)	1
Rabies, specimen unsatisfactory (Mass. Dept. Pub. Health)	1
Serology - negative for leptospirosis	1

SUMMARY OF PULLORUM DISEASE ERADICATION

In the 1964-1965 testing season, 163 chicken, turkey and pheasant flocks were tested, representing 559,006 samples. No pullorum nor fowl typhoid infection was found among the commercial breeding flocks tested. Pullorum infection was detected in two flocks of show stock that were tested. A severe outbreak of the disease occurred also in chicks that were being raised as replacements for a commercial egg-producing flock. In three flocks, the infection is either in the process of being eradicated or has been eliminated.

Paratyphoid infection was detected in five chicken flocks and one pheasant flock. In four chicken breeding flocks, S. heidelberg was isolated. S. typhimurium was isolated from one flock of show birds which also was infected with S. pullorum. The pheasant flock was infected with S. typhimurium.

SUMMARY OF MASTITIS TESTING

1965 - Annual Report

During the calendar year of 1965, 49,042 milk samples were tested for mastitis. Of this number, 45,023 were from 201 private herds, 2,167 were from 4 State and County herds, and 1,852 were tested on an experimental basis. Twenty of 29 herds on initial test were found positive for Streptococcus agalactiae with 37 percent of the cows infected. Fourteen herds were freed from the infection during the year.

A nine-year summary of initial tests (1957-65) indicates the incidence of Str. agalactiae infection in herds enrolled in the state program.

	Herds	Total Cows	Cows Infected
Herds positive	253 (66%)	8698	3059 (38%)
Herds negative	133 (34%)	3580	0

A total of 122 semiannual and 3 annual tests was made on 88 herds that had been Str. agalactiae-free. Eight herds were found to have become infected, 5 of them by the addition of purchased replacements. In two others, home raised heifers reintroduced this infection upon freshening. In one instance, the source could not be determined.

Nocardia mastitis was found in four more herds in the state, which brings the total of such infected premises to twenty-seven since 1953.

UNIVERSITY OF MASSACHUSETTS

SCHOOL OF NURSING

A N N U A L R E P O R T

July 1, 1965 - June 30, 1966

UNIVERSITY OF MASSACHUSETTS
School of Nursing

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UNIVERSITY OF MASSACHUSETTS
School of Nursing

July 1, 1965 - June 30, 1966

From: Mary A. Maher, Dean, School of Nursing

To: Dr. John W. Lederle, President, University of Massachusetts

Subject: Annual Report of the School of Nursing - July 1, 1965 - June 30, 1966

Dear President Lederle:

It is my pleasure to submit herein the report of the School of Nursing for the fiscal year 1966; prepared according to the format received from the Office of R. J. McCartney, Secretary of the University.

May I take this opportunity to express my appreciation and that of the faculty for your continued administrative support and understanding.

Most sincerely,

Mary A. Maher

Mary A. Maher, Dean
School of Nursing

MAM:mmr

UNIVERSITY OF MASSACHUSETTS
School of Nursing

ANNUAL REPORT

July 1, 1965 - June 30, 1966

1. Appropriation:

FISCAL YEAR	APPROPRIATION
1963-1964	$19,950.00
1964-1965	$24,700.00
1965-1966	$20,600.00

2. Personnel:

Rank	Number of Personnel Sept. 1963	Feb. 1964	Sept. 1964	Sept. 1965
Dean	1	1	1	1
Associate Dean	-	1	1	1
Professor	2	1	2	2
Associate Professor	1	1	1	2
Assistant Professor*	4	4	5	5
Instructor**	4	4	5	12
Total	12	12	15	23

* 1 Assistant Professor paid from Mental Health Grant.

** 1 Instructor paid from Mental Health Grant.

2a. Appointments, Promotions, Resignations - Fiscal, 1965-66:

New Appointments (N) or Replacements (R)

Date	Name	Rank	Clinical Area	N	R
Undergraduate Program:					
9/65	Rita Kisting	Instructor	Medical & Surgical	X	
"	Benita Martocchio	Instructor	Medical & Surgical	X	
"	Alice Norman	Instructor	Medical & Surgical	X	
"	Elizabeth Petti	Instructor	Medical & Surgical	X	
"	Charlene Phelps	Instructor	Medical & Surgical	X	
"	Hildegard Salenius	Associate Professor	Psychiatric-Mental Health	X	
"	Mary Schank	Instructor	Medical & Surgical	X	
"	E. Ann Sheridan	Instructor	Maternal & Child		X
2/66	Bettye Frederic	Instructor	Public Health		X
Graduate Program:					
9/65	Ida MacDonald	Associate Professor	Nursing Administration	X	
			Total	8	2

Promotions

Date	Name	From	To	Clinical Area
1/31/66	Rachel Smith	Assistant Professor	Associate Professor	Psychiatric-Mental Health

Resignations

Name	Rank	Area	Date	Length of Service
Elizabeth Petti	Instructor	Medical & Surgical	1/66	1 semester
Rosamond Shepard	Instructor	Maternal & Infant	6/66	2 years
Hildegard Salenius	Associate Professor	Psychiatric-Mental Health	6/66	1 year
Janet Simmons	Instructor	Psychiatric-Mental Health	6/66	1½ years
Rachel Smith	Associate Professor	Psychiatric-Mental Health	6/66	2 years

3. Organization Chart - School of Nursing

Chart I - Functional Organization - page 3a.

Chart II - Faculty Organization - page 3b.

4. Students and Clientele served:

Classification	Sept. 1963	Sept. 1964	Sept. 1965
Baccalaureate Program:			
Nursing Majors	146	178	206
Graduate Registered Nurses in Practice*	Summer, 1963 25	Summer, 1964 Enrollment too limited to warrant offering work conferences.	Summer, 1965 25
Graduate Registered Nurses in Practice**	1963-64 96	1964-65 72	1965-66 92
Total Graduate Nurses	121	72	117

* Summer job-related work conferences designed for Graduate Professional Nurses (R.N.'s) in Practice offered by the School of Nursing.

** Work conferences for practicing supervisors and head nurses in hospitals and public health nursing agencies. The University of Massachusetts School of Nursing was one of six (6) Universities in New England participating in the program. The program is sponsored by the New England Board of Higher Education in Nursing and is funded by the United States Public Health Service Division of Nursing. These work conferences are focused on improving the quality of nursing care through the improvement of management, supervisory and teaching skills of professional nurses responsible for directing nursing service personnel.

5. Publications, Research Grants, Research Projects and Other Professional Activities:

a. Publications -

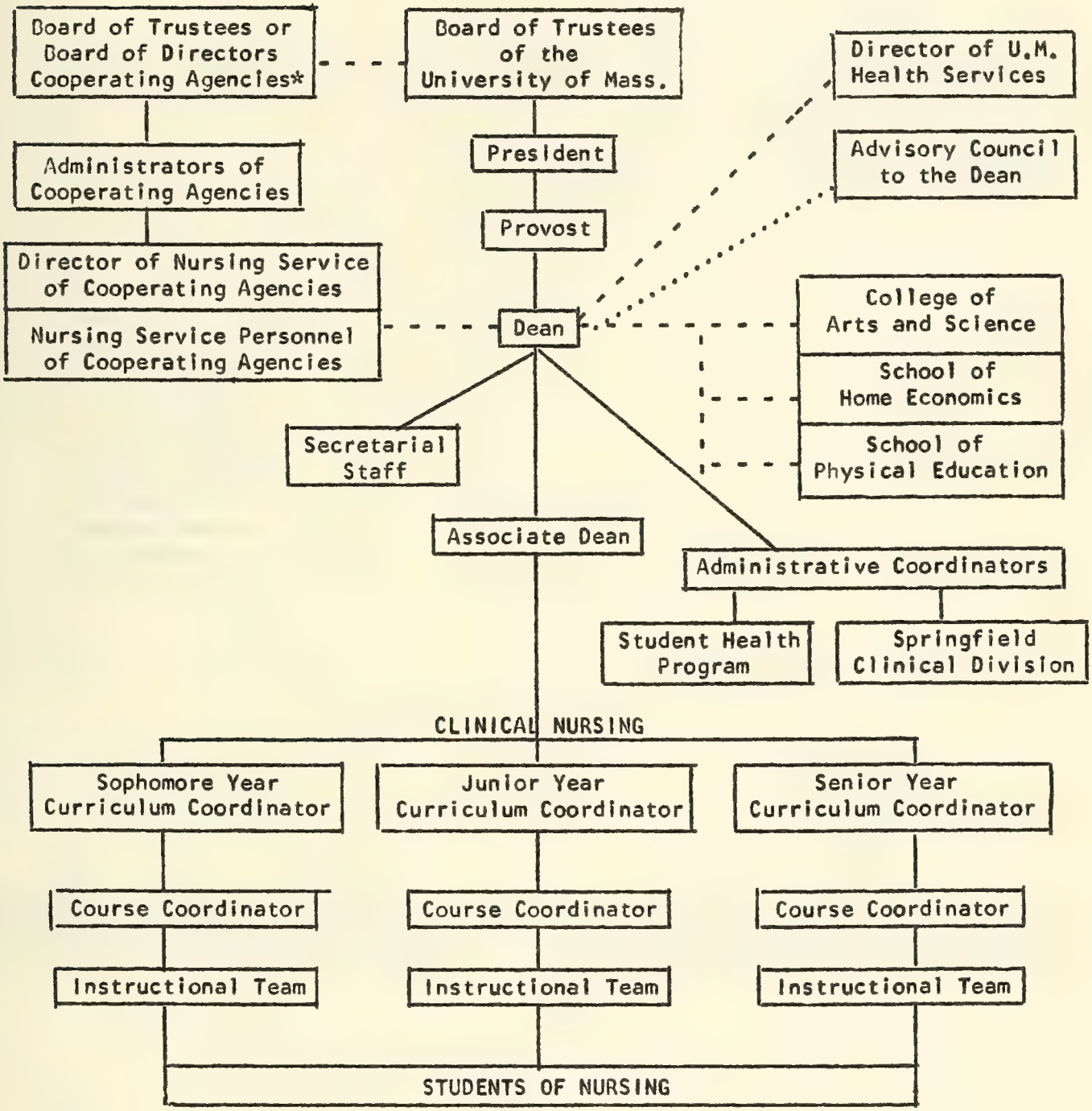
- Mary E. Macdonald, Associate Dean

"Utilization of Nursing Personnel", Proceedings of Work Conference on Improvement of Nursing Practice, Massachusetts Nurses Association, August, 1965.

UNIVERSITY OF MASSACHUSETTS
School of Nursing

Functional Chart of Organization

1964-1965



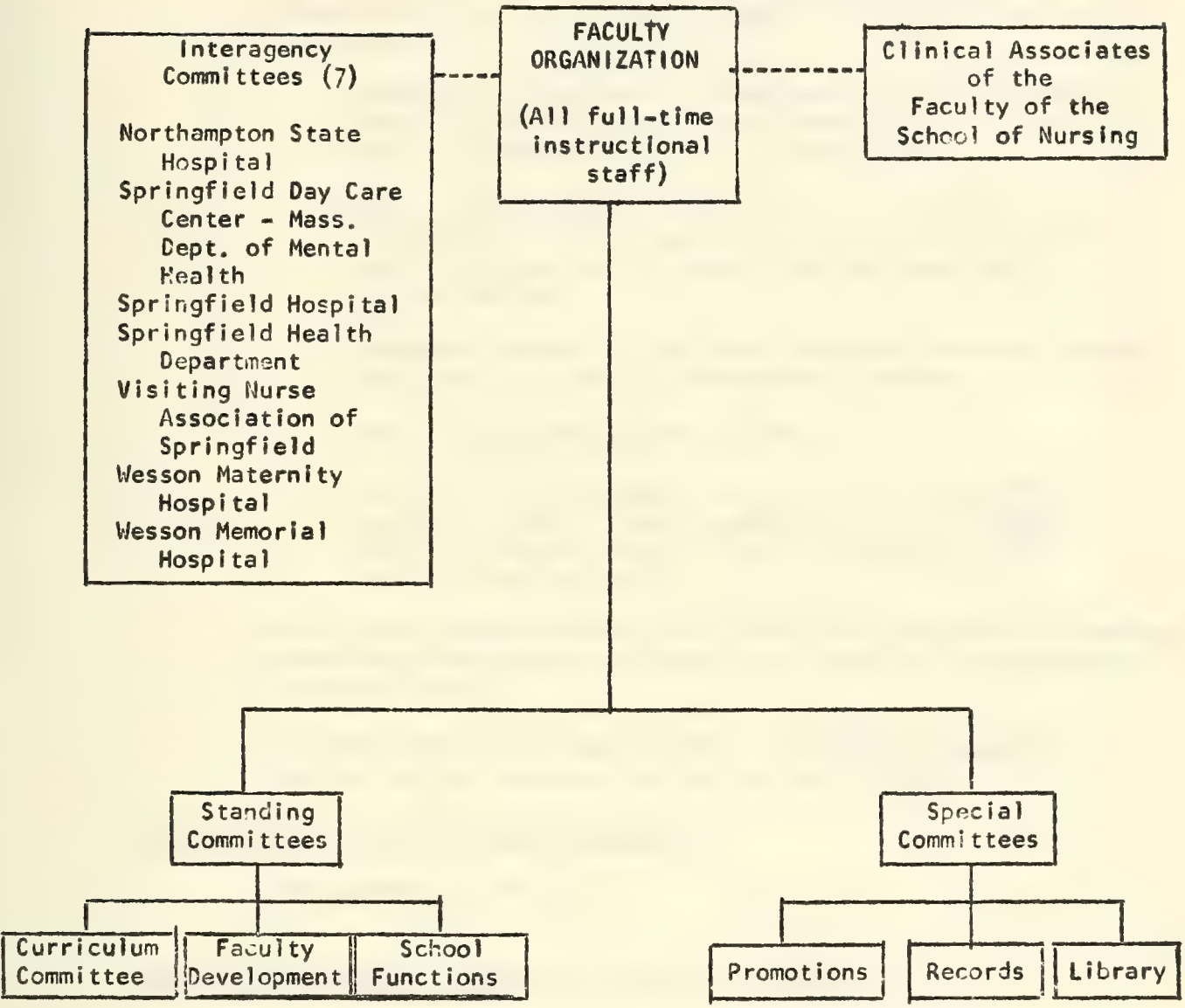
Legend:

_____ Direct Responsibility
- - - - Collaborative Relationship
. . . . Advisory Relationship
* Seven Cooperating Agencies

UNIVERSITY OF MASSACHUSETTS
School of Nursing

Faculty Organization of School of Nursing

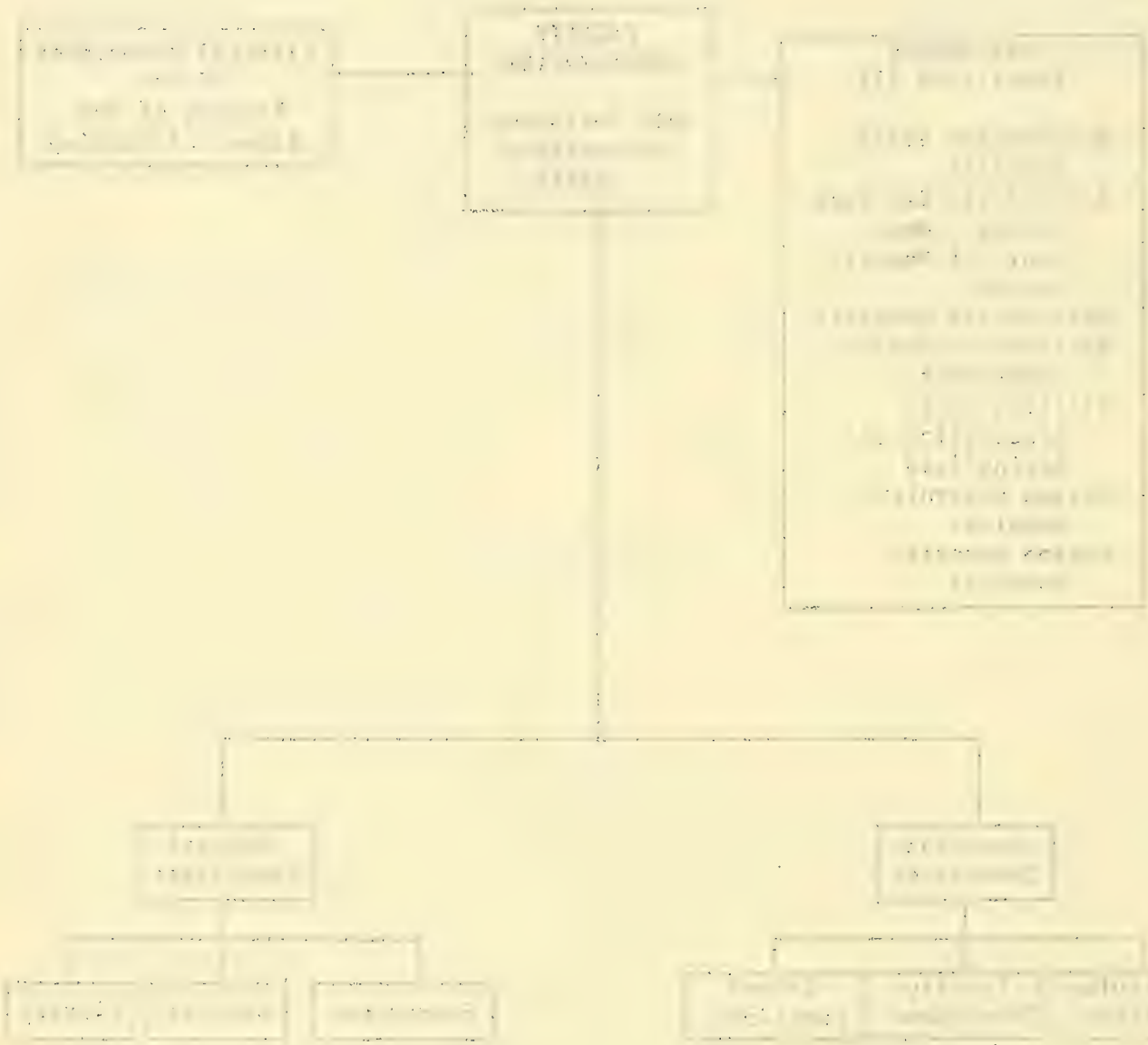
1964-1965



Legend:

_____ Direct Responsibility

------- Advisory Relationship



b. Grants -

- National Institute of Mental Health - Integration of Psychiatric Nursing in the Baccalaureate Nursing Program.

A grant of $25,432.02 was made to the School of Nursing for the tenth consecutive year. The continuity of the grant has made it possible to:

- designate a psychiatric nurse faculty member to function directly with non-psychiatric clinical nursing faculty for the sophomore, junior and senior years;

- award undergraduate stipends, tuition and fees, to students in the last two years of their program. (One senior and one junior student received such awards during 1965-66.)

- purchase psychiatric services from the University Health Services for a faculty development program;

- add to the audio-visual equipment;

- utilize the professional services of two qualified psychiatric nurse faculty members during the summer in the project related to the Neighborhood Health Center in Springfield.

Of the total amount of the grant, $2284 was designated as Overhead; $5400 for undergraduate stipends; and, $1260 for undergraduate tuition and fees.

Our 1966 graduate has been accepted for advanced psychiatric study at New York University for the fall of 1966.

c. Professional Activities of the Faculty:

(See Appendix B and C.)

6. Major Accomplishments of School of Nursing - 1965-66:

I. Graduate Program:

1. Development of the first graduate program to be offered by the School of Nursing in September, 1966 - Master of Nursing Administration. Approved by the Graduate School and the University Board of Trustees - 6/30/66.

2. Development of a preliminary proposal for a graduate program - Master of Psychiatric Nursing. Consultation was provided by Dr. Gertrude Isaac, Nursing Consultant, National Institute of Mental Health, Washington, D. C.

II. Undergraduate Program:

A. Curriculum Development -

During the past year, the Faculty of the School of Nursing has directed its efforts toward continuing refinement of the nursing curriculum. Cognizant of the fact that the needs of people dictate the design of nursing, and thus, the pattern of its educational programs, the Faculty, in 1964, recommended a curriculum design which:

- emphasized a broad problem-solving approach to the nursing care of individuals of all age groups in a variety of settings;

- permitted the development of core units in all upper division nursing courses, which required the participation of a faculty team representative of the various clinical specialties in nursing;

- provided for increased opportunity for continuity, progression and sequence in learning. The revised design was considered experimental in nature and continuous evaluation and refinement was recognized as a constant imperative. The results of two years of experience with the revised plan would appear to support not only its general wisdom, but also the need for continued development in the three areas mentioned above.

The major curriculum refinements accomplished in 1965-66 have emanated from an individual and collective consciousness of the need to:

- maintain integrity through the control of size of the school.

- insure against undue specialization and fragmentation of the educational experience.

- enrich instruction.

- experiment with the variants of independent study.

- collaborate with members of the University faculty as regards course offerings in general education and supporting courses.

- create the feeling of an intellectual community.

Specific accomplishments include:

1. The creation of a functional faculty organizational structure which will permit increased involvement of all faculty in the conduct of school business in ways consonant with their individual rank and responsibilities.

2. The establishment of intra-disciplinary teaching teams at each instructional year level to the end that maximum utilization of the specialized preparation, skills and interests of each faculty member will be effected concomitantly with increased opportunity for collaborative and coordinative functioning as a member of a teaching team.

3. The extension and improvement of the broad core units offered in the upper division nursing courses, with increased opportunity for intra- and inter-disciplinary participation. Continued development in this area has resulted in a progressive movement away from the traditional, segmented, compartmentalized approach in the teaching of clinical nursing content.

4. The experimentation with "programed" learning in selected areas of instruction, with the utilization of "programed" instruction in the course units on Asepsis; Measurement and Dosage; and Biostatistics.

5. A markedly revised approach in the teaching of Operating Room Nursing in which increased emphasis will be placed on continuity of care of the surgical patient, and less emphasis on operating room techniques. This plan will be implemented on an experimental basis in 1966-67.

6. The exploration of and experimentation with selected variants of Independent Study.

    a. A Subcommittee of Curriculum assumed the responsibility for investigating the much-discussed area of Independent Study in the Basic Collegiate Nursing Program. Their activities included an exploration of the literature and existing programs of independent study in other nursing programs and colleges and an opinionnaire survey of University of Massachusetts nursing majors and a group of non-nursing sophomore women. The progress report of this Subcommittee emphasized the need for further investigation of the subject through controlled research and, in the interim, for further utilization of teaching methods which provide for the active participation of students in an informal climate with the faculty serving as resource personnel. The faculty is committed to further investigation of this topic in 1966-67.

b. Since its initiation, the Special Problems Seminar offered in the Junior Year has been oriented to the development of increased understanding of research methodology and beginning skill in its application. In 1965-66, the objectives were extended to include the opportunity to initiate a design for a descriptive type of investigation appropriate for undergraduate students of nursing.

Six faculty members and nine junior students participated in this seminar. Despite the heavy demand which this seminar placed on both student and faculty time, its role in allowing the student to take an active part in the learning process, to utilize an indirect method of faculty guidance and to develop increased skill in critical thinking was emphasized by both students and faculty. The problems selected by the students were as follows:

- Use of the Kardex as a means of communicating information to improve continuity of patient care.
- Identification of factors predisposing to formation of decubitus areas.
- Identification of fears common to adult preoperative patients.
- Investigation of the influence of knowledge concerning a diagnosis of carcinoma on selected areas of interpersonal behavior in hospitalized adults.
- Investigation of toy selection for preschool hospitalized children.
- Investigation of interpretation of commonly used terms by nursing personnel and patients.
- Investigation of a method of preoperative preparation for four and five year old children anticipating a tonsillectomy.
- Investigation of the relationship of attitudes of nurses about charting to the quality of nurses notes.

Five of the students plan to complete their investigation during the senior year.

c. The Special Problems Seminar at the senior level provided an opportunity for three senior students to participate in individual and group experiences with psychiatric patients for the purpose of increasing both practitioner and research skills. Each student spent one hour each week in the clinical setting in actual participation with patients; kept a diary of each session; received one hour

of faculty supervision for each hour spent with patients; and prepared a clinical paper. One student elected to work in a continuing therapeutic nurse-patient relationship with an acutely disturbed schizophrenic young male; the other students elected a group experience. The two faculty preceptors identified this teaching experience as the most meaningful one in which they had participated in at the University and indicated that the learning outcomes far exceeded their expectations of undergraduate students of nursing. The students commented on the extraordinary meaning of the experience in their personal and professional growth and on the imperative need for similar experiences in other areas.

7. The participation of the clinical nutrition faculty member in the planning and implementation of the foundation course in normal nutrition offered by the School of Home Economics. Inasmuch as nutrition is an integral part of health, it is viewed, in all its aspects, as an essential part of the nursing curriculum. The responsibility for the development of the teaching content, including its practical application, is shared by nursing and nutrition faculty. During the past year, emphasis was placed on the extension and improvement of the content offered in this area.

8. The establishment of a University Chapter of Sigma Theta Tau, national nursing honor society. Directly related to the need to establish the feeling of an intellectual community is the progress made during the past year to initiate a chapter of the national nursing honor society at the University of Massachusetts School of Nursing. On June 9, notification was received from Dr. Elkins, Director of Honors and Chairman of the Honors Council, that the petition to establish a University Chapter of Sigma Theta Tau had been approved by the Senate Committee on Academic Affairs. The organization will function as a local honor society until a charter is received from the national organization.

B. Clinical Resources:

The procurement of suitable clinical and other related laboratories for the implementation of the required practicum in a collegiate nursing program is a task which faces the faculty of many schools of nursing, which does not have a University hospital and related clinical facilities. This problem is one which the Faculty has faced since the inauguration of the program twelve years ago, but which has been compounded in recent years by such factors as:

- increased student enrollment in our program.
- increasing demands on cooperating agencies by other nursing education programs in the area, including associate degree and practical nursing programs.
- interest on the part of the facultyto inaugurate selected experiences with patients and families during the Freshman Year.

These pressures have increased the imperativeness of securing the needed clinical and other related laboratories, within feasible geographic distance from campus, which will meet the quantitative and qualitative criteria of an accredited collegiate program.

During the past year, extended use has been made by the faculty of the clinical resources of the second general hospital cooperating in this program -- Wesson Memorial Hospital. Clinical rotations for 1966-67 have been planned within the limits of the existing structure (6 cooperating agencies). By 1967-68, additional clinical resources must be located to provide the needed learning experiences for the nursing majors currently enrolled.

C. Program Priorities - 1966-67:

1. Present and Future Role and Function of the University of Massachusetts School of Nursing -

The fact that every profession is influenced by its heritage, its immediate problems, emerging societal trends, the nature of its practice, and the extent to which it can realistically enact changes which will permit progress has been well documented. And the profession of nursing has not escaped the influence of social change. Particularly significant in its recent development are the impact of the current explosion of knowledge affecting health practices, the increasing level of education in the United States, and the public demand for more health care. Major changes and trends in and around nursing have made it imperative to examine the nature and scope of nursing practice and the type and quality of education needed by nursing practitioners.

In December, 1965, the American Nurse's Association in its first position paper on education for nursing took the position that:

a. Education for those who work in nursing should take place in institutions of learning within the general system of education.

b. Minimum preparation for beginning professional nursing practice should be baccalaureate degree education in nursing.

c. Minimum preparation for beginning technical nursing practice at the present time should be associate degree education in nursing.

It is obvious that this movement holds particular implications for collegiate nursing education in general and for this public supported University School of Nursing in particular. Among these are:

a. The responsibility of colleges and universities not now offering programs in nursing, but having the resources to do so, to provide education for practitioners of nursing.

b. The responsibility of colleges and universities now offering programs in nursing to expand facilities and faculties to accommodate the expected increased number of applicants.

c. The responsibility of universities now offering programs in nursing to utilize their resources for the preparation of increased numbers of master clinical nursing specialists and faculty members qualified to assume teaching positions.

d. The responsibility of colleges and universities to determine the distinctions between education which prepares for professional nursing practice and that which prepares for technical practice.

Cognizant of their leadership role and responsibility in assisting with the development of a coordinated system of nursing education within the public-supported institutions of higher education in the Commonwealth, the Faculty of the School of Nursing have addressed their individual and collective efforts to these issues during the past year. More specifically, their on and off campus activities have included:

a. The establishment of a subcommittee to study the contemporary issues in nursing as they relate to the education of professional nursing practitioners, and to make recommendations as to the objectives and learning experiences appropriate for the undergraduate baccalaureate program in nursing.

b. The establishment of a subcommittee to study the contemporary trends in higher education and, more specifically, anticipated direction of higher education on this campus, and to develop a projected blueprint for our undergraduate program in nursing within the framework of these movements.

c. Individual faculty participation at the local, state and regional level in professional and community group activities related to this issue.

The faculty is committed to further study of these issues and problems in 1966-67. A two-day off-campus faculty conference has been scheduled in September as the kick-off point for the continued deliberation on this subject.

2. Curriculum Implementation -

As indicated earlier in this report, priority will be given in 1966-67 to:

a. The enrichment of the course offerings at the senior level through the extension and improvement of intra- and inter-disciplinary core units and the expansion of opportunities for the independent pursuit of selected problems.

b. An experimental approach to the teaching of operating room nursing at the junior level.

c. Continued exploration of the philosophy and method of independent study as it relates to the basic collegiate nursing program and continued experimentation with selected variants of this method.

d. Continued refinement of the lower division nursing courses toward the achievement of increased coordination with other nursing and supporting courses and increased participation of the student in the learning process.

e. Cooperative effort with interagency personnel in improving the quality of the nurse care offered to patients and families to the end that the quality of the nursing education offered to our students will be improved, as well as the concomitant service to patients and families.

f. Continued exploration of additional clinical and other related laboratories within feasible geographic distance from campus to provide the resources needed for implementation of program for the students currently enrolled.

g. Continued work on special projects described under #7 of this report.

7. Special projects or programs of the School of Nursing - 1965-66:

PROJECT 1: Promoting the Establishment of a Neighborhood Health Center

During the past year, a special committee of the faculty has been engaged in exploring the health needs of the families of low socioeconomic status residing in a somewhat isolated area of Springfield. The rate of social and health problems is especially high. The goal of this committee is to initiate plans for the establishment of a Neighborhood Health Center in Census Tract 7, Brightwood Area of Springfield to the end that:

1. A community health resource will be created through which multiple health services will be made conveniently accessible to a segment of the population who present a multiplicity of health-related problems, and in which new patterns of family health care, based on the latest advances in the health and allied sciences, can be developed and demonstrated.

2. A community health laboratory will be available in which the representatives of the helping professions can collaborate in delineating and defining the specific health needs of the people living in this area of the community, and in developing and demonstrating improved approaches to their solution.

To date, the Committee's activities have included:

1. Establishing lines of communication with government and community leaders and/or agencies.

2. Investigating the methodology employed in the planning and establishment of selected existing neighborhood health centers and the organizational patterns effected.

3. Establishing lines of communication with residents of the Riverview Apartments (a federally-aided low income housing project in this census tract), including the administration of a health survey questionnaire.

4. Review of the literature relating to neighborhood health services, programs, studies and demonstration projects, including the reports of two recent extensive surveys of community problems and programs of community service in the Springfield area.

5. The preparation and submittal of a project proposal for Financial Assistance for the Planning and Establishment of this Community Service Program under Title I of the Higher Education Act of 1965. This request was for funds to support a multidisciplinary University team which would be responsible for the preliminary planning and development of the proposed Neighborhood Health Center, and for the development of continuing project grants from other sources, such as the Economic Opportunity Act and the Nurse Training Act, 1964.

Although this project was not one of those funded in Fiscal 1966 under Title I of the Higher Education Act of 1965, a modest budgetary allotment from the Provost will permit continued exploration and development of the project during the summer, 1966, by a faculty team. Also, the members of the special committee have committed themselves to continued work on this project in 1966-67 on the basis that:

- it represents an educational research program, in which the resources of the University of Massachusetts can be employed in identifying and developing new, expanded or improved approaches to the solution of community health problems.

- the proposed facility will provide a much-needed community health laboratory for utilization by the School of Nursing and other University programs in the implementation of their respective programs of study.

PROJECT II: Curriculum Project: Independent Pursuit of Learning Experiences with Selected Families

Another group of faculty addressed themselves to the development of an experimental program whereby the senior course offerings might be enriched through the extension of student experiences with selected families. A preliminary statement of a project proposal was developed, which is based on the premise that enrichment of learning experiences for selected students can be accomplished through independent study which has as its focus the care of families, and that this study of selected families can be pursued in lieu of the structured courses offered in the senior year.

The faculty has committed itself to a Fall, 1967 target date for the initiation of this curriculum project. A special subcommittee has been appointed to continue exploration of the proposal during Summer, 1966. It is anticipated that a request for funding will be submitted in 1966-67 to the Division of Nursing, U. S. Public Health Service, where monies are available through the Nurse Training Act of 1964 and other appropriate grant sources.

PROJECT III: Faculty Development Project

During the past two years, a number of the faculty have been interested in learning more about the group process and more about themselves as a group participant and group leader. This interest was stimulated by a recognition of the need for increased skill in working collaboratively and productively with students, peers and other inter- and intra-disciplinary groups. In 1964-65, four faculty seminars were held for the purpose of discussing attitudes and relationships of the teacher and student in the teaching and learning process. Dr. Julian Janowitz, Director of the University Mental Health Service, served as seminar leader. The helpfulness of these sessions resulted in an expanded project in 1965-66. Seventeen (17) faculty members participated in the program in 1965-66. Two faculty groups were formed -- each of which met weekly with Dr. Janowitz throughout the year. The content of the group discussions was initiated by the group. Along with the discussion and sharing of important concerns, there was an opportunity to investigate and learn the process through which a group -- and in particular, this group -- functions. The general consensus of the faculty is that this experience contributed much to the improvement of work effectiveness, group morale, and self-understanding.

The participants recommended that the project be continued in 1966-67. Funding has been established for the fall semester, 1966. A faculty committee has assumed the responsibility of finding ways and means for continuing support of this project.

8. Future Plans and Needs:

The School of Nursing, now in its twelfth year of operation, is conscious of its responsibilities for:

- Improving the curriculum of the baccalaureate program.
- Increasing the number of educational opportunities for baccalaureate nursing education within the University and the Commonwealth.
- Initiating such advanced programs in nursing education as will increase the quality and quantity of nurse clinicians and teachers of nursing.
- Collaborating with schools of nursing offering advanced programs in clinical nursing by providing a practicum in teaching.
- Continuing education for professional nurses in practice.
- Providing consultation service.

CURRICULUM IMPROVEMENT -

Improvement of the curriculum is of perpetual concern to a faculty dedicated to the preparation of a qualified professional nurse practitioner. and of a graduate who will meet the requirements for admission to graduate schools. The work already initiated will be continued, and during the coming

year consultation will be sought.

INCREASING THE EDUCATIONAL OPPORTUNITIES FOR BACCALAUREATE NURSING EDUCATION IN MASSACHUSETTS -

It is generally agreed that until the number of students enrolled in baccalaureate nursing programs can be at least doubled, throughout the country, the advanced nursing programs preparing such graduates for positions in teaching, administration, supervision, consultation, and research cannot assume their professional role and responsibility. As a result the preparation of a larger number of baccalaureate nursing students cannot go forward at a rate essential to meet the nursing care needs of our society.

The University of Massachusetts School of Nursing can help to meet this problem by:

- increasing the admission of qualified high school graduates to 100 in 1967 (1966 admission - 80);
- encouraging the transfer of students from accredited senior and/or junior colleges who meet the requirements of the University and the School of Nursing;
- admitting graduates of diploma and associate degree programs in nursing, who meet the requirements of the University and the School of Nursing, for a 3-5 year period commencing in September, 1967;
- providing leadership in the planning for the initiation of additional baccalaureate nursing programs in the State Colleges of the Commonwealth (presently, there is one such program - The State College at Fitchburg).*

The target date for the completion of the University Hospital in Worcester is 1971. The Advisory Council to the Dean believes an autonomous School of Nursing should be established in Worcester at such time as the facilities of a College of Arts and Sciences are available.

Utilization of the desirable clinical resources of the University Hospital for baccalaureate study by the students enrolled at the University of Massachusetts School of Nursing/Amherst would necessitate travel to Worcester two or three days a week.

ADVANCED PROGRAMS IN NURSING EDUCATION -

The School of Nursing is obligated to provide graduate education in the areas of greatest need in the Commonwealth. Its first such program - Nursing Administration - will be initiated in September, 1966. It is anticipated that enrollment in this program will materially increase each year.

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* Recent statistics reveal that the number of students seeking admission to diploma programs in Massachusetts is decreasing. Nationally the number of graduates from such programs decreased by 1433 in 1964-65.

Nurse-Clinician:

The graduate program in Psychiatric-Mental Health Nursing, originally planned for 1967 or 1968 will, of necessity, have to be postponed until a later date. Basically, the problem lies in the inadequacy of clinical resources in this area of the State, and the dearth of qualified psychiatric personnel. Both are essential if the practicum for the graduate students is to be significant and meaningful.

The future holds promise. It is anticipated that the bill (S.889) currently before the General Court which provides for the decentralization of the Massachusetts Department of Mental Health and for the construction of multipurpose Mental Health Centers in regional areas will receive favorable action. If such is the case, construction of the long-anticipated Mental Health Center in Springfield will go forward. The establishment of a Department of Psychiatry at the University of Massachusetts School of Medicine undoubtedly will employ psychiatrists and other essential professional psychiatric personnel. Such resources will be of unestimable service to a psychiatric nurse faculty member planning a graduate program.

Teachers of Nursing:

The preparation of additional professional nurses is dependent primarily upon the availability of qualified nursing faculty. The responsibility and role of the University of Massachusetts School of Nursing in the preparation of teachers of nursing will be defined and clarified during the coming year.

INTER-UNIVERSITY COLLABORATION -

Increasingly, graduate programs preparing teachers of nursing are seeking a practicum for their students. An initial exploratory meeting has been held with one such program in Massachusetts. While the faculty feels that collaborative action is essential, the time and effort required in developing a sound practicum by faculty members who would qualify as preceptors will be considerable. Inter-university planning will, however, go forward during the next year.

CONTINUING EDUCATION FOR GRADUATE NURSES IN PRACTICE -

The University of Massachusetts School of Nursing plans to continue its collaboration with the New England Board of Higher Education in providing work conferences for graduate nurses in practice.

The unprecedented explosion of knowledge which has resulted in radical changes in medical and nursing practice demands that a continuing education program be provided for the graduate nurses providing direct care to patients and/or directing the services of nursing personnel. (These educational services are funded through the Short-Term Traineeships of the U. S. Public Health Service.)

Three work conferences, sponsored by the School of Nursing, are planned for the Summer of 1967. These educational opportunities are planned on the basis of the expressed need of practicing graduate registered nurses.

CONSULTATION SERVICE -

The School of Nursing anticipates continuation of its consultative services through its faculty to:

- State colleges interested in initiating a baccalaureate degree program in nursing.
- Public community colleges interested in initiating and/or in improving an associate degree program in nursing.
- Diploma programs desiring help in the area of general curriculum development and/or in the improvement in the teaching of clinical nursing, such as Nursing of Children; Nursing of the Adult; Maternal and Infant Nursing; Public Health Nursing and/or in the transition from a diploma to an associate degree program.

SCHOOL OF NURSING FACILITY -

The present and projected services of the School of Nursing cannot be realized without a School of Nursing facility. An adequate and functionally designed School of Nursing Building is absolutely essential.

Unfortunately, the School of Nursing's request for Capital Outlay (1963, 1964, 1965) is not high on the priority list. While several public and private schools of nursing throughout the country have received up to 66 2/3 percent of the total construction costs through the Nurse Training Act[1], we cannot apply for federal funds and our School continues to be housed in less than adequate quarters (Western Massachusetts Public Health Center and Morrill IV).

A Planning Committee for the School of Nursing Building has been appointed by the President. It is anticipated that the Committee will initiate its task in the fall.

FACULTY -

While adequate resources and facilities for clinical nursing laboratories are essential for the improvement and extension of the baccalaureate nursing program, and the initiation of graduate programs, the quality, creativity and commitment of the faculty continues to be the most important single asset of any school of Nursing.

The utilization of the faculty through the use of Team Teaching has continued for the second year. There appears to be increasing evidence that the several problems inherent in this method of teaching are viewed as challenges by the members of the teaching teams. Considerable responsibility must be assumed by all members of the team but more particularly by those responsible for providing leadership to the team.

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(1) Requests for construction grants (4 year period 1965-69) have exceeded the 43 million dollar ceiling. Efforts are being made by the American Nurses Association and other interested groups to extend the ceiling.

The sophomore, junior and senior year coordinators function not unlike a department head. Her role and responsibility is indeed similar, and are compounded when new and inexperienced faculty members join the team. Every effort must be made to attract faculty qualified, by preparation and teaching experience, for appointment at the rank of Assistant, Associate, or full Professor. The present disproportionate of Instructors (55%) places a far too heavy responsibility upon those faculty members assuming an administrative, teaching, and leadership role at the operational level.

Recruitment of qualified faculty continues to be a difficult task, due to the enchantment of many with the large city, but primarily because too few faculty are graduates from advanced programs each year.

SUMMARY -

The unfinished tasks confronting the School of Nursing require that a Blueprint with priorities be established. The energy and capabilities of the faculty must be expended in such a manner as will bring credit to the University, the School of Nursing, and a sense of accomplishment and professional pride to the School's faculty.

UNIVERSITY OF MASSACHUSETTS
School of Nursing

Appendix A

FACULTY

1965-66

Full-Time

Administration:

Miss Mary A. Maher, R.N. (Rhode Island Hospital School of Nursing)
B.S. (Columbia University)
M.A. (Columbia University)
Dean, School of Nursing

Miss Mary E. Macdonald, A.B. (Emmanuel College)
R.N. (Mass. General Hospital School of Nursing)
M.A. (Columbia University)
Associate Dean and Professor of Nursing Education

Maternal and Child Nursing:

Miss Gellestrina T. DiMaggio, A.B. (Connecticut College for Women)
M.N. (Yale University School of Nursing)
M.A. (Columbia University)
Professor, Maternal and Child Nursing

Miss Rosamond R. Shepard, B.S. (Simmons College School of Nursing)
M.S. (University of Colorado School of Nursing)
Instructor, Maternal and Infant Nursing

Miss E. Ann Sheridan, R.N. (Catherine Laboure School of Nursing)
B.S. (Boston College)
M.S. (University of Pennsylvania)
Instructor, Maternal and Child Nursing

Miss Edith G. Walker, R.N. (Episcopal Hospital of Philadelphia)
B.S.N.E. (University of Pennsylvania)
M.A. (Columbia University)
Assistant Professor, Maternal and Infant Nursing

Nursing of the Adult:

Miss Elizabeth A. Clarke, A.B. (Mt.Holyoke College)
M.S. (Columbia University)
M.N. (Yale University School of Nursing)
Assistant Professor, Medical and Surgical Nursing

Miss Mary F. Condron, R.N. (St. Francis Hospital School of Nursing)
B.S.N.E. (The Catholic University of America)
M.S.N. (The Catholic University of America)
Assistant Professor, Medical and Surgical Nursing

Miss Mary E. Gilmore, R.N. (Mass. General Hospital School of Nursing)
B.S. (Simmons College)
M.S.N. (The Catholic University of America)

Professor of Nursing

Miss Rita Kisting, B.S.N. (University of Wisconsin School of Nursing)
M.S. (University of Colorado)

Instructor, Medical and Surgical Nursing

Miss Benita Martocchio, B.S. (Hartford College)
R.N. (Hartford Hospital School of Nursing)
M.S. (Western Reserve University)

Instructor, Medical and Surgical Nursing

Miss Helen C. Mather, B.S. (Boston College School of Nursing)
M.S. (Boston College School of Nursing)

Instructor, Medical and Surgical Nursing

Miss Jane E. Nicholson, R.N. (Mt. Auburn Hospital School of Nursing)
B.S. (University of Utah School of Nursing)
M.S, (Boston University School of Nursing)

Instructor, Medical and Surgical Nursing

Miss Alice Norman, R.N. (Westchester School of Nursing)
B.S. (Western Reserve University)
M.S. (Western Reserve University)

Instructor, Medical and Surgical Nursing

Miss Elizabeth Petti, R.N. (Holyoke Hospital School of Nursing)
B.S. (Boston University School of Nursing)
M.S. (Boston University School of Nursing)

Instructor, Medical and Surgical Nursing
(Resigned from position - January, 1966)

Miss Charlene Phelps, B.S. (University of Connecticut School of Nursing)
M.S. (Western Reserve University)

Instructor, Medical and Surgical Nursing

Miss Mary Jane Schank, B.S.N. (University of Wisconsin School of Nursing)
M.S. (University of Colorado)

Instructor, Medical and Surgical Nursing

Miss Dorothy L. Sexton, R.N. (St. Raphael School of Nursing)
B.S. (Boston College School of Nursing)
M.S. (Boston University School of Nursing)

Instructor, Medical and Surgical Nursing

Psychiatric-Mental Health Nursing:

Miss Greta Salenius, R.N. (St. Luke's Medical and Children's Center, Denver, Colorado)
B.S.N.E. (University of Denver)
D.N.Sc. (Boston University)

Associate Professor, Psychiatric-Mental Health Nursing

Mrs. Janet Simmons, R.N. (Worcester Memorial Hospital School of Nursing)
B.S. (Boston University)
M.S. (Boston University)

Instructor, Psychiatric-Mental Health Nursing

Miss Rachel Smith, R.N. (Sioux Valley Hospital School of Nursing)
B.S. (South Dakota State College School of Nursing)
M.Ed. (University of Minnesota School of Nursing)
C.A.G.S. (Boston University School of Nursing)

Associate Professor, Psychiatric-Mental Health Nursing

Public Health Nursing:

Mrs. Bettye Frederic, B.S. (Dillard University School of Nursing)
M.S. (Boston University)

Instructor, Public Health Nursing
(Appointed to position: February, 1966)

Miss Constance A. Kurkul, R.N. (Children's Hospital School of Nursing)
B.S.N. (Boston University School of Nursing)
M.A. (Columbia University)

Assistant Professor, Public Health Nursing

Graduate Program:

*Miss Ida M. MacDonald, B.A. (University of Montana)
R.N. (Presbyterian Hospital School of Nursing)
M.A. (University of Minnesota

Associate Professor of Nursing

*Joint appointment - University of Massachusetts School of Nursing and Franklin County Public Hospital.

Part-Time

Mrs. Kathryn B. Nickolls, B.S. (University of Oklahoma)
A.D.A. (University Hospital, University of Michigan)

Lecturer, Clinical Nutrition

FACULTY ACTIVITIES

July 1, 1965 - June 30, 1966

In addition to their regular administrative, teaching and counseling activities, the Faculty of the School of Nursing has participated individually and collectively as follows:

A. Participation in the planning and implementation of educational and other services within the University:

1. All- University Committee Membership and Other Services:

Miss Maher

Member: Faculty Senate
Dean's Council
Master Planning Council

Miss M. Macdonald

Member: Faculty Senate Committee on Summer Session
President's Committee - Planning Northwest Residential Complex
President's Advisory Committee - Department of Public Health
Advisory Curriculum Committee - Department of Public Health
Exploratory Committee - Organization of Research-Training Institute in Environmental Health

Miss Clarke

Member: Committee on Scholarship, Financial Aid, Placement and Study Abroad

Non-resident faculty fellow:
Southwest Residential College - Emerson House (First semester)

Miss DiMaggio

Member: Committee on Academic Matters
Subcommittee on Honors

Non-resident faculty fellow:
Orchard Hill Residential College - Eugene Field House

Miss Gilmore

Member: Committee on Tenure and Grievance
Committee on Admissions and Records

Non-resident faculty fellow:
Southwest Residential College - Thoreau House

Miss Kurkul

Member: University Health Council

Miss Mather

Chairman: Committee on Recognized Student Organizations

Member: Faculty Senate
Committee on Committees
Committee on Student Affairs

Miss Nicholson

Member: Library Committee

Miss Schank

Faculty Advisor: Scrolls

Miss Smith

Member: Faculty Senate
Committee on University Affairs
Committee on Evaluation - Orchard Hill Residential College

Non-resident faculty fellow:

Southwest Residential College - Melville House

Miss Walker

Member: Committee on Faculty Affairs
Distinguished Teacher of the Year Committee

2. School of Nursing Committee Membership:

Miss Maher

Chairman: Faculty Organization
Interagency Administrative Committee - Public Health Nursing

Member: Curriculum Committee
Promotions Committee
Committee on Graduate Program
Interagency Administrative Committee - Wesson Memorial Hospital

Miss M. Macdonald

Chairman: Curriculum Committee
Promotions Committee
Records Committee
Student-Faculty Evenings Planning Committee
Interagency Administrative Committees:
Springfield Hospital
Wesson Memorial Hospital
Wesson Maternity Hospital
Faculty Advisory Personnel Committee

Secretary: Faculty Organization
Advisory Council to Dean

Member: Library Committee
By-Laws Committee
Committee on Graduate Program
Subcommittees of Faculty and Curriculum - (4)

Miss Clarke

Chairman: Ad Hoc Committee to Study Communication Problems
Subcommitte of Faculty - (1)

Secretary: Promotions Committee
By-Laws Committee

Member: Faculty Organization
Curriculum Committee
Interagency Administrative Committee - Wesson Memorial Hospital
Faculty Advisory Personnel Committee
Advisory Council to Dean

Miss Condron

Chairman: By-Laws Committee

Member: Faculty Organization
Curriculum Committee
Subcommittees of Faculty and Curriculum - (2)
Interagency Administrative Committee - Wesson Memorial Hospital

Miss DiMaggio

Secretary: Subcommittee of Faculty - (1)

Member: Faculty Organization
Curriculum Committee
Promotions Committee
Library Committee
Records Committee
Subcommittee of Curriculum - (1)
Interagency Administrative Committees:
Wesson Memorial Hospital
Wesson Maternity Hospital

Springfield Hospital
Faculty Advisory Personnel Committee
Advisory Council to Dean
Committee on Graduate Program

Mrs. Frederic

Member: Faculty Organization
Subcommittee of Faculty - (1)
Interagency Administrative Committees:
Springfield Health Department and
Visiting Nurse Association of Springfield

Miss Gilmore

Secretary: Records Committee

Member: Faculty Organization
Curriculum Committee
Faculty Development Committee
Library Committee
Promotions Committee
Advisory Council to Dean
Faculty Advisory Personnel Committee
Committee on Graduate Program
Interagency Administrative Committees:
Springfield Hospital
Wesson Maternity Hospital
Springfield Health Department and
Visiting Nurse Association of Springfield

Miss Kisting

Secretary: Subcommittee of Faculty - (1)

Member: Faculty Organization
School Affairs Committee
Subcommittees of Faculty and Curriculum - (3)
Student-Faculty Evenings Planning Committee

Miss Kurkul

Chairman: Subcommittee of Faculty - (1)

Secretary: Interagency Administrative Committee -
Springfield Health Department and
Visiting Nurse Association of Springfield

Member: Faculty Organization
Curriculum Committee
Promotions Committee
Library Committee
Records Committee
Interagency Administrative Committee - Wesson
Maternity Hospital
Advisory Council to Dean

Miss I. MacDonald

Secretary: Committee on Graduate Program

Member: Faculty Organization
Faculty Development Committee
Social Committee
Faculty Advisory Personnel Committee
Advisory Council to Dean

Miss Martocchio

Chairman: Subcommittee of Curriculum - (1)

Member: Faculty Organization
Subcommittees of Faculty - (2)
Student-Faculty Evenings Planning Committee

Faculty Advisor: Preliminary Planning Committee - Sigma Theta Tau Chapter

Miss Mather

Member: Faculty Organization
Curriculum Committee
Subcommittee of Faculty - (1)
Interagency Administrative Committee - Springfield Hospital

Faculty Advisor: Nursing Club

Miss Nicholson

Chairman: Library Committee

Secretary: Interagency Administrative Committee - Wesson Memorial Hospital

Member: Faculty Organization
Curriculum Committee
Student-Faculty Evenings Planning Committee
Subcommittees of Faculty and Curriculum - (4)
Faculty Advisory Personnel Committee
Preliminary Planning Committee - Sigma Theta Tau Chapter

Miss Norman

Member: Faculty Organization
By-Laws Committee
Subcommittees of Faculty and Curriculum - (3)

Miss Phelps

Member: Faculty Organization
School Affairs Committee
Subcommittees of Faculty and Curriculum - (3)
Preliminary Planning Committee - Sigma Theta Tau Chapter

Miss Schank

Chairman: Subcommittee of Curriculum - (1)

Member: Faculty Organization
School Affairs Committee
Subcommittee of Faculty - (2)
Student-Faculty Evenings Planning Committee

Miss Shepard

Chairman: School Affairs Committee

Secretary: Interagency Administrative Committee - Wesson Maternity Hospital
Subcommittee of Faculty - (1)

Member: Faculty Organization
Subcommittees of Faculty and Curriculum - (2)

Miss Sexton

Secretary: Curriculum Committee
Faculty Development Committee

Member: Faculty Organization
Subcommittee of Faculty - (1)
Preliminary Planning Committee - Sigma Theta Tau Chapter

Faculty Advisor: Nursing Club

Miss Sheridan

Secretary: Subcommittee of Curriculum - (1)

Member: Faculty Organization
Subcommittees of Faculty - (2)
By-Laws Committee
Preliminary Planning Committee - Sigma Theta Tau Chapter
By-Laws Committee - Sigma Theta Tau

Miss Salenius

Chairman: Subcommittee - Independent Study

Member: Faculty Organization
Promotions Committee
Committee on Graduate Program
Advisory Council to Dean
Faculty Personnel Committee

Miss Smith

Chairman: Faculty Development Committee

Member: Faculty Organization
Curriculum Committee
Records Committee
Subcommittee of Faculty - (1)
Interagency Administrative Committee -
Northampton State Hospital
Advisory Council to Dean
Committee on Graduate Program

Miss Walker

Secretary: Library Committee

Member: Faculty Organization
Curriculum Committee
Subcommittees of Faculty and Curriculum - (3)
Interagency Administrative Committees:
Wesson Maternity Hospital
Springfield Health Department and
Visiting Nurse Association of Springfield

B. Participation in the planning and implementation of programs related to improvement of patient care and nursing education:

1. Organizational Activities:

Miss Maher

Chairman: Standing Committee on Continuing Education, New England Council on Higher Education in Nursing
Program Committee - Deans' Meeting, National League for Nursing Council of Member Agencies Dept. of Baccalaureate and Higher Degree Programs, Philadelphia, Pennsylvania

Vice-Chairman: Hampshire County Public Health Association

Director: Third Inter-University Faculty Work Conference

Member: Massachusetts Board of Registration in Nursing
Executive Council, New England Council on Higher Education in Nursing
Review Panel on Nursing Projects, Division of Nursing, U. S. Public Health Service (Site Visit to Emory University School of Nursing - July 25-26)
Planning Committee - Regional Nursing Work Conference, University of Massachusetts, N.E.B.H.E.N., Fall and Winter
Faculty, Regional Nursing Work Conference, N.E.B.H.E.N. Fall and Winter

Miss M. Macdonald

Chairman: Massachusetts Nurses Association - Committee on Professional Counseling and Placement Service

Member: Massachusetts League for Nursing - Steering Committee Study of Nursing Needs and Goals in Commonwealth
New England Council of Higher Education in Nursing
Massachusetts General Hospital School of Nursing Advisory Council
Holyoke Hospital School of Nursing Advisory Council
Advisory Council - Training Center for Comprehensive Care - Lemuel Shattuck Hospital

Miss Clarke

First Vice-President: District One - Massachusetts Nurses Association

Member: Massachusetts Nurses Association - EACT Section, Program Committee

Miss Condron

Member: Massachusetts Nurses Association - Committee on By-Laws

Miss DiMaggio

Secretary: Massachusetts Nurses Association - Conference Planning Committee

Co-Chairman: Committee on Awards and Recognition - Massachusetts Nurses Association - District One

Member: Greenfield Community College School of Nursing Advisory Committee

Miss Gilmore

Member: Board of Directors - Massachusetts Nurses Association, District One
Board of Directors, Massachusetts Nurses Association
Massachusetts League for Nursing - Scholarship Committee
M.L.N. - M.N.A. Disaster Committee
New England Council on Higher Education in Nursing - Planning Committee
Annual Forum

Miss Kurkul

Chairman: Conference on Cardiac Nursing, Western Mass. Heart Association

Member: Board of Directors, Western Mass. Heart Association
Springfield Cancer Society

Miss I. MacDonald

Director: Regional Work Conference, University of Massachusetts, N.E.B.H.E.N., Fall and Winter

Member: Council on Graduate Education, New England Council on Higher Education in Nursing

Miss Mather

Second Vice-Chairman: Massachusetts Nurses Association - District One, EACT Section

Miss Shepard

Secretary: Massacnusetts Nurses Association, EACT Section

Miss Sexton

Member: Mass. League for Nursing - Committee on Public Relations and Communication

Miss Walker

Member: Planning Committee, Massachusetts Nurses Association - Maternal and Child Health Conference

2. Other Activities:

Miss Maher

Chairman: Scholarship Committee - Hampshire County Business and Professional Women

Member: Hampshire County Public Health Association - Board of Directors and Executive Council
Massachusetts Tuberculosis and Health League
Massachusetts Department of Mental Health Advisory Committee

Miss M. Macdonald

Consultant on Nursing Education -

Henry Heywood Memorial Hospital, Gardner
Somerville Hospital School of Nursing

Editorial Consultant - Nursing Education

C. V. Mosby Co., Publishers, St. Louis, Missouri

Speaker -

Fall Conference, Maine Student Nurses Association, Portland, Maine - Oct. 6, 1965

N.E.B.H.E. Nursing Conference, Amherst, Oct. 27, 1965
Westfield Nurses Association Meeting, Westfield, Mass. Nov. 3, 1965
Nursing Conference, Western Mass. Department of Public Health, Amherst, Nov. 16, 1965
M.L.N. Department of Diplima and Associate Degree Programs Meeting, Providence Hospital, Dec. 14, 1965
M.L.N. - Central Massachusetts Meeting, Worcester, Jan. 19, 1966
M.L.N. District One and M.N.A. Western Massachusetts Meeting - Agawam, Feb. 28, 1966
Seminar, Holyoke Hospital Nursing Service, Holyoke, April 6 and June 16, 1966
Henry Heywood Memorial Hospital School of Nursing, Gardner, Capping Address, April 28, 1966
M.L.N. Department of Nursing Service and Nursing Education Meeting, Boston University, April 30, 1966
Greenfield Community College School of Nursing, Greenfield, May 24, 1966
Mass. Department of Mental Health, School of Practical Nursing, Pioneer Valley Division, Graduation Address, June 15, 1966
Regional Conference for Public Health Nursing Supervisors, Boston University, June 21, 1966

Miss DiMaggio

Panel Moderator: "Nursing Responsibilities - Brain Injured Infants and Children" - Mass. Department of Public Health, Springfield

Speaker: Belchertown High School Career Day

Mrs. Frederic

Co-Instructor: Parent Education, Springfield Visiting Nurse Association, Springfield

Miss Gilmore

Member: Board of Governors, Alumni Association, The Catholic University of America

Speaker: Nursing Institute, M.N.A., Head Nurse Section, Dedham, Mass., Feb. 18, 1966
N.E.B.H.E. Nursing Conference, Amherst, Apr. 28,1966
Conference on Respiratory Problems, Worcester County Public Health Association, Worcester, May 13, 1966

Miss I. MacDonald

Consultant: Nursing Education, School of Practical Nursing, Northampton
Nursing Service Administration and Staff Development, Franklin County Public Hospital

Speaker: Nursing Institute, M.N.A. - Head Nurse Section, Dedham, Mass.
aN.E.B.H.E. Nursing Conference, St. Anselm's College, Manchester, New Hampshire
Nursing Club, University of Massachusetts School of Nursing

Miss Martocchio

Speaker: N.E.B.H.E. Nursing Conference, Amherst, Oct. 1965

Miss Mather

Speaker: N.E.B.H.E. Nursing Conference, Amherst, Oct. 1965

Reserve Officer: Captain - Air Force

Miss Nicholson

Reserve Officer: Assistant Chief Nurse - New Hampshire Air National Guard - 133rd Aeromedical Evacuation Flight

Miss Phelps

Consultant on Nursing: Western Massachusetts Heart Association

Miss Sheridan

Consultant: Maternal and Child Nursing, Greenfield Community College School of Nursing

Miss Walker

Member: Planning Committee and Group Leader, Community Program, "How to be a Successful Teenager" - Northampton Council of Churches

Group Leader: M.N.A. Maternal and Child Health Conference

Co-Instructor: Parent Education Course, Visiting Nurse Association of Springfield

Speaker: Health Careers Day, Holyoke, Massachusetts, Mar. 1966
Hopkins Academy, Hadley, Mass.

Appendix C

FACULTY ATTENDANCE AT PROFESSIONAL MEETINGS

Date	Meeting	Place	Faculty Members Attending
10/7/65	M.N.A. - District I - Annual Meeting	Agawam, Mass.	Miss Condron Miss DiMaggio Miss Gilmore Miss Kurkul Miss Maher Miss Mather Miss Schank Miss Shepard
10/14/65	N.E.C.H.E.N. - Fall Meeting	Cambridge, Mass.	Miss DiMaggio Miss Macdonald Miss Maher Miss MacDonald
10/18/65 - 10/22/65	Institute for Instructors of Disaster Nursing	Framingham, Mass.	Miss Mather Miss Nicholson
10/27/65 - 10/29/65	M.N.A. - Annual Meeting	Chicopee, Mass.	Miss Clarke Miss Condron Miss DiMaggio Miss Gilmore Miss Kisting Miss Kurkul Miss Mather
11/3/65 - 11/5/65	A.N.A. Conference on Improvement of Patient Care	Washington, D.C.	Miss Sexton
11/9/65 - 11/10/65	Conference on Obstetrical, Gynecological and Neonatal Nursing	Hanover, New Hampshire	Miss Shepard
11/10/65 - 11/12/65	N.L.N. - D.B.H.D.P. - Council of Member Agencies - Fall Meeting	Philadelphia, Pennsylvania	Miss Clarke Miss DiMaggio Miss Sheridan
11/16/65	M.N.A. - District I - EACT Section Program Meeting	Holyoke, Mass.	Miss DiMaggio Miss Kurkul
11/18/65	Annual Meeting - Visiting Nurse Association of Springfield	Springfield, Mass.	Miss Kurkul
11/30/65	M.L.N. - Annual Meeting	Boston, Mass.	Miss DiMaggio
1/18/66	M.N.A. - District I - EACT Section Program Meeting	Northampton, Mass.	Miss Kurkul Miss Mather Miss Shepard Miss Sexton
1/26/66	M.P.H.A. - Conference on Legislation	Boston, Mass.	Miss Kurkul Miss Walker
2/12/66	Conference on Mental Retardation	Amherst, Mass.	Miss Kisting Miss Sheridan

Date	Meeting	Place	Faculty Members Attending
2/28/66	M.N.A. - District I - Program Meeting	Agawam, Mass.	Miss Kisting Miss Nicholson Miss Shepard Miss Sexton
3/1/66 - 3/3/66	Conference on Educational Television - D.H.E.W.	Cambridge, Mass.	Miss Nicholson
3/7/66	Child Study Association - 42 Annual Conference	New York City	Miss Shepard
3/12/66	Third Intercollegiate Student Nurses Conference	Storrs, Conn.	Miss Kisting Miss Schank Miss Sheridan Miss Shepard
3/14/66 - 3/17/66	American College of Surgeons and Nurses Convention	Cleveland, Ohio	Miss Martocchio Miss Phelps
3/16/66	Annual Meeting - United Fund	Springfield, Mass.	Miss Kurkul
4/11/66	Conference on Birth Defects - M.D.P.H.	Amherst, Mass.	Miss DiMaggio Miss Shepard
4/11/66	Conference on Mental Retardation	Boston, Mass.	Miss Sheridan
4/18/66 - 4/21/66	Conference on Aerospace Nursing - U.S.A.F.	San Antonio, Texas	Miss Macdonald
4/25/66	M.N.A. - District I - EACT Program Meeting	Pittsfield, Mass.	Miss Kisting Miss Mather Miss Schank Miss Shepard Miss Sheridan
5/4/66	N. E. Health Educators Association	Northampton, Mass.	Mrs. Frederic Miss Kurkul
5/10/66	M.N.A. - District I - EACT Section Program Meeting	Springfield, Mass.	Miss Kisting Miss Shepard Miss Sexton Miss Sheridan
5/11/66	N.E.C.H.E.N. Annual Forum	Boston, Mass.	Miss DiMaggio Miss Gilmore Miss M. Macdonald Miss I. MacDonald
5/19/66 - 5/20/66	Educational Conference	Wentworth By-the-Sea Newcastle, Mass.	Miss Maher
6/13/66 - 6/17/66	A.N.A. - Bienniel Convention	San Francisco, California	Miss Kurkul

Date	Meeting	Place	Faculty Members Attending
6/20/66 - 6/24/66	Third Inter-University Faculty Work Conference - N.E.C.H.E.N.	Chatham Bars Inn Chatham, Mass.	Miss Clarke Miss Condron Miss DiMaggio Miss Gilmore Miss Kisting Miss Kurkul Miss Martocchio Miss Maher Miss Mather Miss Nicholson Miss Norman Miss Phelps Miss Salenius Miss Schank Miss Sexton Miss Walker Miss I. MacDonald
6/28/66	Governor Volpe's Conference on Hospital Planning	Boston, Mass.	Miss Maher Miss I. MacDonald

ANNUAL REPORT
SCHOOL OF PHYSICAL EDUCATION
June 1966

1. Appropriations

Account/Year	1963-1964	1964-1965	1965-1966
03	27,825	36,250	31,300
05	14,000	6,900	7,400
07	6,000	7,000	7,000
09	2,100	3,000	3,000
10	2,700	5,940	6,100
11	-0-	200	100
12	2,500	3,398	4,800
13	16,850	14,850	28,100
14	1,500	2,330	3,500
14[1]	5,400	5,000	6,000
15[2]	6,775	3,400	4,000
16	350	300	200

2. Personnel[1]

	1963-1964	1964-1965	1965-1966
Dean	1	1	1
Assistant Dean	0	1	1
Department Head	2	2	2
Professor	3	3	3
Associate Professor	7	6	6
Assistant Professor	5	5	7
Instructor	10	11	12
Part Time Instructor	2	2	1
Assistant Athletic Dir.	1	1	1
Head Coach	2	2	1
Intramural Director	0	1	1
Asst. Football Coach	2	2	2
Athletic Coach	4	4	4
Asst. Athletic Coach	3	3	3
Financial Manager of athletics[2]	1	1	1
Sports Information Dir.[2]	1	1	1
Asst. Sports Information Director[2]	1	1	1

3. Organization Chart for 1964-1965 - see attached chart.

4. Students or clientele served[1]

	Sept. 1963	Sept. 1964	Sept. 1965
Number of Graduate Students	[illegible]	16	12
Number of Undergraduate Majors	[illegible]	[illegible]	[illegible]
Number of Students Taught	[illegible]	[illegible]	6520
Athletic Team Membership	[illegible]	[illegible]	[illegible]
Intramural Participation	not recorded	3165	[illegible]

[1]See Appendix for Departmental breakdown
[2]Paid from Athletic Trust Funds

I. Faculty Publications

a. Bischoff, David C., "Designed for Participation," J. Health, Physical Education, Recreation, 37:29, March, 1966.

Campney, Harry K., and Wehr, Richard W. "An Interpretation of the Strength Differences Associated with Varying Angles of Pull," Research Quarterly, 36:403-412, December, 1965.

Campney, Harry K. and Vincent, Marilyn F. "Effects of Calisthenics on Selected Components of Physical Fitness," Research Quarterly, 36:393-402, December, 1965.

Coffey, Margaret A., "Girls in Sports: 1900-1965," A.C.A.A. Bulletin, Vol. 4, No. 3, pp. 16-20.

Coffey, Margaret A., "Some Unorthodox Thoughts About Showers," J. Health, Physical Education, Recreation, 37:29, May, 1966.

Ricci, B., "Oxygen uptake and blood lactate relationships in subjects of diametric somatotype," Ergonomics (supplement), p. 87, October, 1965.

Ricci, B., et al. "Energy cost and efficiency of Harvard Step Test performance," Arbeitsphysiologie, 22:125, 1966.

Vendien, Lynn, "Survey of Physical Education in Asia and the Pacific Islands," J. of Health, Physical Education and Recreation, 37:19, March, 1966.

b. Research Grant

Riggs, Hilda, Travel allowance to present a paper at the International Congress on Girls and Women's Sports, Cologne, Germany, summer 1965. Paper, "Trends in Grouping."

c. Papers presented:

James, B., College Physical Education Association meeting, Philadelphia, December, 1965

James, B., Massachusetts Association for Health, Physical Education, and Recreation, Boston, March, 1966.

Ricci, B., "Oxygen debt and blood lactate measurement," Annual Meeting, American College of Sports Medicine, Madison, Wisconsin, March, 1966.

d. Current research

Ricci, B., Negative energy balance (Faculty Research Grant)

Ricci, B., Oxygen debt incurred in the six minute mile

Ricci, B., Inefficiency of soda lime carbon dioxide absorber

Ricci, B., and James, L., Assessment of Knee Strength Rotation.

Ricci, B., and Snook, G., Subtalor instability

e. Professional activities. School Faculty represented the University at the following conferences during the year:

International Congress on Girls and Womens Sports
American College of Sports Medicine
National College Physical Education Association for Men
National Collegiate Athletic Association Meetings
Association of Interpretive Naturalists
National Recreation Congress
New England Recreation Conference
Eastern Association for Physical Education of College Women
American Assoc. for Health, Physical Education & Recreation
Massachusetts Assoc. for Health, Physical Education & Recreation
Eastern District Assoc. for Health, Physical Education & Recreation
International Academy of Aquatic Art
National Assoc. for Student Teaching

6. Major accomplishments

a. Department of Athletics

(1) Intramurals

The main objective in this year's intramural program was to promote additional interest, with an ultimate aim of attaining a higher percentage of participation in the various individual sports. The participation in this phase increased by 116% over the past year, and it is felt that the goal was achieved.

Team sport entries continued to rise and showed a 28% increase over last year. This high percentage can be attributed to the individual sports, such as wrestling, swimming, and cross country, in which teams were also represented and a team champion determined.

Individual participation showed an increase of 10% and the total participations amounted to 17,464 or an increase of 10% over last year.

(2) Intercollegiate Athletics

The Frank W. Kerney Trophy, awarded annually to the Yankee Conference University attaining the most points in conference championship competition, was returned to the University in June 1965. Conference championships this academic year in soccer and indoor track enhance the University's prospects of retaining this trophy for another year.

The University's football team completed a successful season by finishing with six consecutive victories. Five members of that team were drafted by professional football teams. One of these, Walt Kwiat, the first draft choice of the Cleveland Browns and a member of the All-Yankee Conference Academic Team, became the first student-athlete to represent the University in a major post season football game by participating as a member of the North team in the Annual Senior Bowl Game in Mobile, Alabama on January 8, 1966.

On the winter sports scene, the varsity ski team under the able direction of Coach William MacConnell, experienced its best season in history, placing second in the Osborn Division of the eleven-team New England Intercollegiate Ski Conference. The appointment of John Lesmen as Varsity Coach of Basketball, replacing Coach John Orr who resigned, insures continued progress in the years to come in fielding strong and successful basketball teams.

As in the past, the future intercollegiate athletic schedule of the University will continue to be built around Yankee Conference competition, supplemented by contests with representative independent teams from the New England and Northeast Region. Radio Station WTTT again will sponsor the Redmen Football Network throughout the Commonwealth during the coming year, and hopefully plans will materialize to extend coverage to the basketball season as well. Plans for the future also include introducing a Junior Varsity program in basketball, baseball, lacrosse and football in order to accommodate the growing number of students who wish to participate in these sports at that level of competition. Finally, participation by the varsity basketball team in tournaments in Boston and Oklahoma City next year during the Christmas holiday recess, and the selection of the University as the site of the annual North-South All-Star Lacrosse Game in June 1967, provide further evidence of the continued development and growing stature of the University's athletic program.

The academic achievement of our scholarship holders is also a concern of the Council and the Athletic Coaches. As was the case a year ago, it is gratifying to record that again no scholarship athlete in the freshman class was dismissed for academic reasons.

(3) One of the many highlights of the last year at the University was the dedication and availability of the newly erected Alumni Stadium. The dedication ceremony of this facility on the date of the Homecoming Day Football game against the University of Rhode Island was a memorable occasion, with Governor John H. Yulne, members of the Board of Trustees and the University Building Authority, and a large crowd in attendance. This contest, and one that followed, were televised state-wide for the benefit of all citizens of the Commonwealth.

b. Department of Physical Education for Men

(1) Undergraduate Professional Preparation Program

Revision of the undergraduate major curriculum undergoing study for the past year has been completed. An approach toward consolidating common professional courses currently offered in both the Men's and Women's Departments is presently under study.

Recruitment

The success of the school "Career Day," for the purpose of recruitment of prospective majors throughout the state, justifies continuance of the program.

The development of a display panel for public information use at State, District and National meetings has been most effective in acquainting students, parents and faculty of other college and Universities with the total programs of the School.

Student Teaching

During the past year twenty-five majors have been placed and supervised in sixteen cooperating schools. Arrangements have been completed for the addition of four new schools for next year.

Seminar meetings for incoming student teachers, where critical issues pertaining to their particular assignments are discussed with the Department faculty have continued. The effectiveness of this approach toward teaching preparation has been highly endorsed by both students and faculty.

Juniors who are planning on practice teaching in the fall are assigned to the school in which they will teach prior to their departure for the summer vacation. This procedure provides the time for the student to make any needed adjustments required to meet the responsibilities of his assignment prior to his return in the fall.

(4) General Program

The caliber of the General Program continued to be reflected in the genuine interest displayed by students enrolled in the program. This interest results from the high level of instruction, the broad selection of activities offered, the instruction environment, equipment and supporting services.

Interest on the students are evidenced by their voluntary participation in a variety of activities during periods of "free play" in which facilities and equipment are available during the late afternoons, evenings and weekends. The stigma of compulsion attached to the "required" aspect of the program is no longer in evidence. Physical Education is viewed by the student as an educational, rather than a perspective experience--an attitude which is not readily attained and one which should be fostered.

The University Health Service referred 230 male students to the Adapted Physical Education unit of the General Program.

The Therapeutic Exercise Unit was conducted from 3:30 to 5:30 Monday through Friday. This unit averages 18 students per six weeks period for four periods. An average of 100 treatments per week were administered. The types of modalities and testing used are progressive resistive exercise, passive exercise, active exercise, muscle re-education, manual muscle testing, range of motion testing, gait analysis, electrical testing and general conditioning.

Adapted sports and follow-up therapy have been offered to students beyond the required program if medically indicated.

c. Department of Physical Education for Women

During the academic year the professional stature of the department has grown. This is evidenced by the number of prospective high school seniors that have applied for admission to physical education, the increasing applications and inquiries regarding transferring to the department from students at other institutions known for preparation in physical education, the increase in inquiries and applications concerning

graduate assistantships, the improved cumulative average of the major students, the notices which the department receives from throughout the country of college positions available, and the number of inquiries the department has had regarding the program, the facilities and faculty opinion.

Our graduate assistants will be holding positions at the University of California at Berkeley, Washington State University, Skidmore College and the University of Massachusetts. In addition, they have been offered positions at the University of Maine, Bates College, University of Connecticut, Michigan State University, Iowa State University, and Springfield College.

Mary O'Toole '66 was enrolled in the Honors Program and was elected to Phi Kappa Phi. Four students from the class of '67 have chosen to do Honors work next year.

(1) Dance Education

The first venture in bringing a New York artist to the campus was most successful. Erik Hawkins presented a lecture demonstration which was the department's attempt to use an artist for educational design. The part dance can play in developing a fine arts program is a goal yet to be realized.

(2) Elementary School Physical Education

The development of a preparation course in physical education for elementary school majors has become a reality. This program needs strong leadership and must be pursued as the responsibility of this department. The status of physical education in elementary schools of the Commonwealth is a discredit to its children.

(3) Professional Preparation Program

A departmental committee has evaluated the total curriculum in light of the changing needs. It is planned to allow emphasis in program areas in order that stronger teaching competencies will result. The future curriculum plans will be basic for the training of women in physical education. With emphasis in skill areas, greater flexibility is allowed for electives in liberal arts.

4. Department of Recreation

The most important accomplishment of the year has been the revision of the undergraduate major curriculum, which has resulted in approval of what we believe is the most forward-looking one in the nation.

In conjunction with this revision intensive consideration has been given to long-range planning for the growth of the department, in terms of trends and needs in the field, competencies to be developed in students, future departmental directions and programs, staffing needs, and interdepartmental cooperative relations.

Consistent with our new perspective which emphasizes undergraduate preparation for professional positions at the supervisory level, every encouragement and form of assistance has been given to Greenfield Community College in the inauguration and operation of a two-year curriculum designated to train recreation leaders and facility managers.

e. School Graduate Program

Continued growth best describes the Graduate Program in Physical Education during the subject period. The number of graduate students rose to nearly twenty-five and two new faculty members were added to the graduate faculty within the School of Physical Education. One of the new faculty members was appointed to direct the Graduate Program in Physical Education. Several new courses were approved which will strengthen the Master's program.

7. Special Programs

a. Movement Education Workshops

Dr. Joan Tillotson of the Women's Physical Education Department traveled to twenty-eight colleges, universities and public school systems this past year presenting workshops in movement education. Her efforts promoted movement education for elementary school children, and enhanced the department professionally. The enthusiasm with which she was received at other institutions was evidenced by letters of appreciation and verbal comments received by the department head at the national convention.

b. Summer Workshop

The first summer workshop for women will be offered this summer in gymnastics. It will be one of the School's efforts to upgrade teaching, to provide for continuing adult education, and to reach a new potential public for the graduate program of the School.

8. Future Plans and Needs

a. Department of Athletics

Despite the addition of Alumni stadium we face a crisis situation with respect to the facilities available for our total physical education and sports program. The construction

of a new Administration building on the former Alumni Field has left the University without satisfactory varsity baseball and outdoor track and field facilities, seriously handicapping our ability to compete successfully in these two intercollegiate sports. Also urgently needed are additional multi-use athletic fields to the west of the Hayden Building for the general physical education, intramural, and varsity sports programs, approximately forty new tennis courts, and a combination indoor artificial ice arena-dressing facility. It is hoped that the construction of all of these facilities will obtain high priority in the near future in the University's Capital Budget.

3. Department of Physical Education for Men

(1) Facilities

The urgent need for high priority Capital Outlay consideration for the development of outdoor instruction areas has been developed in detail in previous Annual Reports.

Recognition of present inadequacy, budgetary support and early development of these facilities is imperative to meet the demands of increased enrollment and program development.

(2) Personnel

The number of full-time staff required to meet future instructional needs will be proportionate to enrollment increases and program expansion planned through the current provision of modern indoor facilities and the future development of outdoor instructional areas.

The extent to which graduate assistants may be used to supplement full-time staff is dependent upon the number of assistantships allocated to the Department. In the interest of maintaining the high caliber of instruction and the respect that the program enjoys, as a part of the University Core Curriculum, it is essential that at least 50% of the instructional load in this area continue to be assigned to the full-time faculty.

(3) Budget

The increase in the number of sections and in the number of teaching stations has placed greater demands upon the quality and quantity of equipment required to support activity and laboratory classes. Growth of the Intramural and Saturday and Sunday voluntary "free play" programs results in a need for larger inventories of game equipment required to support these programs. The budget under 13 Account must therefore be sufficient to procure equipment for scheduled classes, voluntary programs and maintain an inventory which is adequate to meet contingencies.

c. Department of Physical Education for Women

(1) A Dance-Choreography Major should be initiated at the University of Massachusetts. No major institution in the East offers the program. The Department may make a significant start toward acquiring the faculty necessary to offer such a program but will need at least one additional faculty member with a doctorate in dance.

(2) The Department plans to be more active in the area of elementary school physical education. The addition of several English trained faculty members is a part of the Department. The English approach to Elementary physical education is an excellent one and is just beginning to be recognized in this country.

(3) The most critical need of the Women's Department continues to be the need for an addition to the Women's Gymnasium. This addition must be realized in the near future in order to maintain the present excellent quality of instruction.

d. Department of Recreation

With approval of the new curriculum the first priority project for the coming year consists of informational services to high schools, community colleges, and similar sources of high caliber student prospects.

The anticipated rapid growth in major enrollment will necessitate additional faculty positions in the future. Such candidates are in critically short supply, due in part to the relative attractiveness of field positions and partly to the rapid increase in number of institutions starting recreation departments.

Our needs continue for remodeling and renovation of space in Hicks. Requests for this work are being submitted on a unit basis so that each segment of the building will be ready for use when needed.

In a longer-range view three future programs are considered to be important possibilities. First, a graduate program should be inaugurated as soon as the department is assured of adequate resources to support it. At least some of the emphasis will be on interdepartmental cooperation such as through the anticipated broadly-based graduate program in regional planning.

Secondly, a strong research effort is much-needed recently and this department is anxious to plan an important part in it when the graduate program becomes a reality. The possibility of becoming the location for one of the proposed federally-supported Outdoor Recreation Research & Training Units is being pursued by this department.

Thirdly, there are many types of important extension services in recreation which are needed by various agencies, governmental units, and commercial enterprises throughout the Commonwealth. These approaches to the provision of such services have been tried in a number of states. The least successful device is a state intelligence-committee which in Massachusetts is restricted to nutrient recreation. A few states have established a state recreation board. These have been markedly successful in some states, but the prospects in Massachusetts are dim. The third approach, that of a Recreation Extension Service emanating from the state university, offers several strong advantages and seems most appropriate to Massachusetts.

e. Graduate Program

The School of Physical Education plans to initiate a Ph.D program in 1969. This program will be unique and of the highest quality. To realize this goal we will require continued support by the University Administration and Trustees.

f. Summary

(1) Facilities

The School of Physical Education is particularly concerned with the need to provide certain facilities to meet demands of increased student numbers in both Physical Education and Athletics. Immediate needs of the School are as follows:

(a) The development of Plot 2 is projected to be started in the spring of 1967. This will provide Athletics and Men's Physical Education with desperately needed outdoor playing fields. An additional appropriation will be needed to complete this project.

(b) The projected Hockey Arena which would include dressing facilities for Athletic Teams utilizing fields and areas in Plot 2 is badly needed. It is hoped that architects' fees will be realized in the next fiscal year.

(c) The need to add additional teaching stations and offices to the Women's Physical Education Building should receive high priority consideration. The present building was inadequate at the date of construction (1957) because of lack of funds.

(2) Personnel

The School of Physical Education is in critical need of faculty in the Associate Professor and Professor rank. This need has become more apparent with the growth of the Graduate Program. The number of School personnel eligible for membership in the Graduate Faculty is presently six. This has imposed unreasonable work load requirements on these faculty members. The School will continue to endeavor to upgrade the staffing pattern to reach a balance in rank and capability

APPENDIX

Personnel by Department

1. Department of Physical Education for Men

	1963-64	1964-65	1965-66
Department Head	1	1	1
Professor	1	2	2
Associate Professor	3	2	2
Assistant Professor	3	3	3
Instructor	6	6	6

2. Department of Physical Education for Women

	1963-64	1964-65	1965-66
Department Head	1	1	1
Associate Professor	4	4	4
Assistant Professor	2	3	3
Instructor	2	1	1
Part Time Instructor	2	2	1

3. Department of Recreation

	1963-64	1964-65	1965-66
Professor	1	1	1
Assistant Professor	*	*	0
Instructor	2*	1	2

Students Served by Department

1. Department of Physical Education for Men

	1963-64	1964-65	1965-66
Majors	147	191	210
General Program	3068	1202	2600
Students Taught	2653	2969	2440

2. Department of Physical Education for Women

	1963-64	1964-65	1965-66
Majors	73	90	137
General Program	1512	2120	2277
Students Taught	1767	2479	2821

3. Department of Recreation

	1963-64	1964-65	1965-66
Majors	32	34	33
Students Taught	171	134	181

*One Assistant Professor on leave.

June 15, 1966

President John Lederle:

Sir, I beg leave herewith to present my tenth annual report of the School of Education.

The past year has been an active one for the School in some areas and a period of consolidation in others. The only constant factor over the years has been the rapid increase in enrollment. This is continuing, particularly on the graduate level. With this rapid growth comes an increasingly difficult problem of recruiting new faculty and holding on to the ones we have.

One of the encouraging elements this past year has been the rather dramatic increase in funded projects. Several faculty members are involved in these while several others have submitted projects which were not approved. This interest in research should pay dividends for the future of the School.

I wish to assure the administration of our continued loyalty and support.

Albert W. Purvis

awp:lph

GROWTH OF THE SCHOOL

Since the organization of Teacher Education at the University of Massachusetts into a School of Education in September, 1956 its most obvious characteristic has been that of growth. The statistical tables at the end of this report show the details of this growth and indicate that the growth is continuing. A summary of this growth is shown below:

Enrollment Area	1958	1965	Increase	Increase %
University Undergraduate	4267	8935	4668	109%
*School Undergraduate	912	2128	1216	133
Elementary Education Majors	274	695	421	154
*Secondary Education Prac.Teach.	78	243	165	161
*History of Education	216	577	361	167
University Graduates	568	2240	1672	294
*School Graduates	395	1727	1332	337

*These are class enrollment figures

The above summary shows that while the University has been growing quite rapidly, the School of Education has been growing even more rapidly. The growth in graduate enrollment in the School is particularly to be noted. Soon graduate enrollment will be greater than undergraduate if the trend of the past seven years is to continue.

Implications of Growth

It appears that soon a policy decision will have to be made. Are the resources of the School sufficient at present and are the resources likely to be sufficient in the future to permit rapid growth on both the undergraduate and graduate levels? If the resources are not likely to be sufficient, and they were woefully lacking this year, which level should be placed on quota and which area should be expanded? If, as recommended by the Willis Report, the University is to be the sole source of the doctorate among the state institutions of higher education then a rapid

expansion of the Doctor of Education program would appear to be logical and even mandatory both in terms of increased enrollment and in terms of additional training programs.

However, the realities of the situation mitigate against the logic. For years the School has been trying, often with inadequate resources, to keep both undergraduate and graduate programs going with the result that both levels have become quite lean from inadequate nourishment. Any considerable increase in the graduate program would appear inadvisable for the next few years because:

First, the present building is not adequate for an enlarged graduate program. It may be possible, although not desirable, to scatter an undergraduate program all over campus but a graduate program to be at all efficient must be concentrated in areas and at present we will be unable to do this much beyond our present offering. Also these special graduate areas must be quite specialized in terms of clinical, observation, group therapy and research facilities and these our present building does not provide. We began urgently requesting an addition to the present building in 1963. At the moment of writing we appear to be further behind in our request than in 1964 when the planning money request was sent to Boston. Our request is not even on the list this year. The reality of the situation implies that it will probably be 1972 or 1973 before we can hope for an addition so the reality weighs against much increase in graduate programs.

Second, graduate programs require more professional staff and more supporting staff and many more Graduate Fellows. It is unrealistic indeed to think that a graduate program with all its committee work, research, internships and so forth can be run with Faculty on a 15-1 ratio.. This ratio must be drastically reduced if an adequate program is to develop. Also along with advanced graduate programs comes more research and more consulting and more and more the School is expected to exert leadership and to perform service and this adds to the pressure on staff time and the necessity to reduce teaching loads. Here again, the realities would seem to argue against the logic of an increased graduate program because there

seems little reason to expect that the Faculty of the School will be increased very rapidly in the next few years and certainly not much reason to expect that it will be increased enough to adequately support both expanded undergraduate and graduate programs and all the other demands as well. The situation is much the same as regards numbers of Graduate Fellows. No Graduate Faculty in Education can be expected to do everything it is called upon to do without a rather large number of Graduate Fellows. Indeed one of the criteria usually used in judging a graduate program and one usually asked about by top-notch candidates for positions is the number of Graduate Fellows available to help in teaching and research. This year the School of Education with the second highest graduate enrollment of any School on campus has twenty-five thousand dollars for Graduate Fellows and next year it will have seven thousand dollars more. An adequate amount would be nearer one hundred thousand dollars. The fact that the School has obtained from outside sources nearly one hundred thousand dollars for twenty-three additional Fellowships for next year does not entirely change the situation because these Fellowships are for training and research in highly specialized areas. Our greatest need for additional Fellowships is in the service and training areas. At present the reality regarding prospects for additional staff seems to weigh heavily against any substantial increase in graduate programs.

Third, graduate work and its attendant research and service function, is rather prodigal of funds in the budget categories needed to keep the show on the road. Increased funds for conferences, for consultants, for special teachers, for travel to conferences, for travel for supervising interns, for special research equipment, for better libraries, for more sophisticated special media to name but a few are in large demand. The School's budget in these categories has not been increasing rapidly enough to adequately serve both expanded graduate and expanded undergraduate programs. Indeed in some years, including the present one, it is not much more than enough to support either one of these taken separately.

In summary, the situation seems to be that although logic points to the conclusion that the School should undertake a greatly expanded graduate program the reality of inadequate resources in terms of buildings, faculty and budget would seem to weigh against it. Under the present conditions we can only recommend a gradual expansion of the undergraduate program with a rather severe quota placed on the graduate.

RECRUITMENT

Recruitment of good faculty members this year has been very difficult. We did not know how many positions would be available until February and we had no funds for travel and honoraria until late in March. The School finally had five positions to fill and to this was added the necessity to replace four resignations. Several conclusions appear evident from the experience of this year!

First, we must begin active recruiting and appointing before New Years. We have been told by many Placement Directors that October and November are the best months for recruiting candidates for Education. This means that under our present budget system the best solution would be to carry over several positions each year by filling them with temporary help.

Second, it seems obvious that good candidates in Education cannot be obtained by sitting in Amherst and sending out letters to Placement Bureaus and to top men in the areas for which candidates are to be recruited. My fellow Deans tell me that the time has arrived when we must travel to find the good candidates. They insist that nothing can take the place of face-to-face discussion with the top men in the various fields. It would appear that definite provision should be made for travel for recruiting purposes.

Third, our School of Education is growing at a time of great competition for faculty. It would appear unrealistic to believe that we can continue to obtain good candidates by staying within our average salary for the various ranks at the University. For example, in science education, guidance and English Education young men with little experience and

"expecting" the doctorate this summer are asking and getting nine thousand five hundred dollars while other young men with the same training and experience in special education and research are asking and getting twelve thousand dollars.

Fourth, it appears unrealistic to believe that we can continue to find equally good candidates for all positions, that is, equally good candidates in terms of the criteria used by the University. As an example, given ample time, we can find good candidates in Educational Foundations with some teaching, research, and publication for ten thousand dollars because this area still has a good supply. To get candidates with the same training and experience in Educational Administration we would have to go seven thousand dollars and two ranks higher. However, it is realistic to assume that we cannot staff the whole area of Educational Administration with professors with salaries over seventeen thousand dollars. We must include two or three lesser candidates who cannot meet the regular criteria but who can serve to do some teaching in elementary courses, some service and some phases of consulting work.

This would place the major emphasis in recruitment for the next few years on obtaining two or more top faculty in each area who would be supported by several others of varying quality and on more or less temporary appointment. This in turn would mean that judgment on the appointment of any candidate should be made on the basis of the total staff picture in that area and not on the basis of that individual alone. It could also be successfully argued that the judgment of what is available in this "temporary" category should be made by the appropriate Dean who is responsible for keeping the show on the road and who knows the supply, the competition, the special area picture, and the special area needs.

Despite the difficulties listed above, the quality of the faculty is on the whole quite high. The appendix lists some information on the faculty from which the following summary has been derived:

Summary

	Number	Percent
Total Faculty	39	100
Professors	4	10
Associates	10	26
Assistants	15	39
Instructors	6	15
Lecturers	2	5
Unfilled	2	5
On tenure	12	30
Experience here		
0 years	7	18
1 year	10	26
2 years	4	10
Over 2 years	16	46
With doctorate	29	78
masters	8	22

The percentage of faculty with doctorates remains high (78) but it is doubtful if this percentage can long be maintained. The percentage of faculty on tenure (30) would appear to be normal. The percentage of faculty who have been at the School only one year or less (44) and the fact that over half the faculty (54%) have been at the School only two years or less can be ascribed in part to the fact that the School has been growing quite rapidly. It also can be ascribed to the fact that we continue to have three or four resignations each year as the competition for teachers brings many opportunities at other institutions at higher rank and salary. For example, three of the four faculty who resigned this year have gone on to positions paying from fifteen hundred to three thousand more than they would have been getting here in September. It appears, therefore, that the regular salary scales at the University make it not only very difficult to appoint new faculty but to hold on to the ones we have.

THE LABORATORY SCHOOL

The Mark's Meadow Laboratory School has proved to be a very important facility in our undergraduate program. It is the observation laboratory for Education 009, 039 and 059. In these courses approximately six hundred elementary education majors spend an average of sixteen hours a year watching good elementary school teaching, either from the observation corridor or on closed circuit television. The usual procedure is (1) to hold a short briefing session to tell the students what to look for in the particular lesson and then (2) to have the students observe for an hour and then (3) to have the students meet with the teacher whose lesson was observed to discuss the lesson and to ask questions. This ten thousand student-hours of observing time takes considerable organization but it is paying dividends in the increased sophistication and motivation of the students which makes possible much more highly geared methods courses in the senior year. The closed-circuit television is being used extensively for observation purposes, particularly since the School has procured a television tape recorder. Now lessons can be taped at any time of the day and shown when students are available.

In addition to the above, several teachers in the School of Education are using Laboratory School pupils to demonstrate various newer methods. There is a class in the newer mathematics, two professors are demonstrating phases of the Language Arts, lessons have been taped by Laboratory teachers to demonstrate the team teaching organization, and grades 4, 5 and 6 have been organized in reading to demonstrate the Joplin plan. Through all of this it is hoped that our majors will have a wide knowledge of various educational innovations before they graduate.

So far, the Laboratory School has not proved as valuable in research as had been hoped. Several research studies have been conducted but the full potential in my opinion has not been realized. With our new doctorate in Curriculum and Instruction the possibilities for research should multiply.

I wish to report a rather exceptional degree of cooperation between the staff of the Laboratory School and the staff of the School of Education

and between the School and the Amherst School Committee and its administrators. I stress this fine cooperation because we are informed it is frequently lacking among these groups on other campuses. This fall the cooperation will be extended and strengthened when the Amherst Regional High School and the School of Education are connected by closed-circuit television.

THE UGANDA PROJECT

The Tororo Girls School despite various problems seems to be progressing favorably. It is now in its second year of operation and has an enrollment of two hundred and ten students, half in grade nine and half in grade ten. I made my annual inspection trip in February and in my report I noted the following:

> "The real test of the success of any educational institution is the growth and development of its students. From this point of view I think that we all can take considerable pride in what is happening in Tororo. The girls are very happy in their new school environment; they are proud of their school; they are behaving very well; they are working hard; they have developed surprising poise and confidence in the one year they have been there. One has merely to compare the S_2 girls with the new S_1 girls to see that much has been accomplished. On this trip I visited many important Ugandans who live around Tororo and Mbale. Everywhere I heard expressions of pride in the new school and expressions of happiness that their children could attend. Several times I heard, "This is the best school in Uganda." While some of this can be discounted, the fact remains that the general evaluation is good to excellent.
>
> Thus, while admitting that there are problems in the school and while admitting that there is still much to be done, we should start our considerations from the point of view that we have already wrought well but that we are now anxious to progress from a good school to a better school."

One of the problems the project will face in the future is the pressure to take in many more students than the facilities were originally planned to accommodate. Again quoting from my report:

> "In making changes and improvements we should always bear in mind the original concept that the school should exemplify the best in American ideas, methodology and equipment; that the educational opportunities should emphasize the best in curricular and extra-curricular practices to the end that these girls would not only learn about their new world but also would learn how to live in it in a gracious manner; and that the program should be comprehensive, including at least academic, business, and home economics. This is a broad concept, unique in Africa, and very well received by all Ugandans who were consulted in 1961. The concept is just as valid today as it was then and it still offers just as much promise of value in the long range future.
>
> The chief danger to the broad concept will undoubtedly come from the pressure to increase errollments. While one must sympathize with the great need for additional secondary school spaces, and while every effort should be made to obtain efficient use of the present facilities, yet to do so at the expense of the original educational concept might well be false economy of the worst sort so far as Uganda is concerned."

Some problems arose among the staff of the first two years, due in part to the inadequate orientation before the staff started for Africa. It seems necessary to stress (1) that there is a Headmistress and (2) that a boarding school demands much of the time of the staff and (3) that in the absence of adequate recreational and cultural activities the staff are thrown together to a greater extent than at home and (4) that all Americans abroad, and particularly teachers, are goodwill ambassadors and must work toward establishing a good image. We are recruiting for several new staff members this year and it is hoped a stronger team spirit can be developed among them.

The Dedication of the Tororo Girls School in June, 1965 was attended by President and Mrs. Lederle and myself. The main address was delivered by Mrs. Obote the wife of the Prime Minister of Uganda who spoke on the importance of education for women and who expressed warm words of appreciation for the gift by America of this fine school to the people of Uganda. Brief replies to her address were made by President Lederle and Dr. Zake, the Minister of Education for Uganda, both of whom very fittingly spoke of the mutual benefit to both countries which comes from such cooperative enterprises. After the ceremony trees were planted by Mrs. Obote, President Lederle and myself in front of the Dining Hall and at a reception in the evening Mrs. Lederle was elected Honorary Headmistress of Tororo Girls School by the students. I wish to express my appreciation to President and Mrs. Lederle for accompanying me to this ceremony. They added much to the prestige and to the graciousness of the occasion.

The size of this project so far as the University is concerned is seen in the budget for the next three fiscal years:

1966-67	$ 380,181
1967-68	273,378
1968-69	392,049
Total (3 years)	$1,045,608

It is now anticipated that the project will terminate on June 30, 1972 with a budget from 1969-72 somewhat comparable to the above. This means that the total A.I.D./University contract for this project will probably surpass two and one-half million dollars.

Mr. Doubleday, who performed exceptional service to the project while stationed in Uganda for two years is now the Campus Coordinator on the University Campus where his Uganda experience is proving very valuable in administering this end of the operation.

PARTICIPANT TRAINING

One of the problems in the Uganda Project is to provide the proper education for the African participants the Ministry will send to the University for degree programs. At first it was planned to bring only degree women teachers but this was abandoned because of the scarcity of such in Uganda. We then were requested to take several students who had passed the General School Exam (4 years of secondary) and had one or more years in one of their Teacher Training Colleges. This did not seem advisable because they are not the best students in Uganda and they are not acceptable as degree candidates in Makerere College in Uganda. We have asked the Uganda Board of Education to send us high scorers on the Advanced School Certificate (6 years secondary) because they are accepted at Makerere College and they seem best able to compete in our undergraduate program. We are now told that Makerere is taking the top fifty on the list this year and this caused us to send a strong cablegram protesting that since we are paying the full charge of college education for these participants we should be assured of at least some of the top candidates. A further problem comes in the best program for these people. The British undergraduate program is largely concentrated in one area and the success of teachers and the level at which they are placed depends on a very heavy concentration in one subject, e.g. geography. The amount of specialization is hard for Americans to understand. A Geography teacher, for example, will have geography instruction comprising 1/3 of the last three years in high school, 1/3 of the first year in college, 1/2 of the second year in college and all of the last two years in college or the equivalent of 115 credits in geography before the bachelors degree in geography is awarded. The participants have difficulty in understanding our system where breadth of program is emphasized. The problem is to give them a realistic program in terms of Uganda needs without sacrificing academic integrity as practiced in the United States. With our degree in geography a Uganda teacher could teach geography in grade 9 and 10 and perhaps in grade 11 but would be unable to go much beyond this. These considerations should be weighed very carefully

before we get too much involved in participant training and certainly the inferences should be carefully explained to participants before they leave Uganda.

OTHER FUNDED PROJECTS

The School has been active during the past year in writing up projects for funded research and it has had considerable success as is shown by the following brief report:

The current situation regarding research funds in the School of Education and prospects for the future.

(1) Purvis. The Uganda Project. New contract has now been prepared. 1966-67 -- $380181 (firm), 1967-68 -- $273378 (projected), 1968-69 -- $392049 (projected). The original commitment called for approximately one million dollars through 1969. This sum has now been increased to over one and a half million. This project will probably continue through 1971 for an additional million dollars.

(2) Purvis. Kellogg grant for $22000 for three years to work with Community Colleges.

(3) Purvis, Wolf. Federal Dept. Vocational Education in Distributive Education. Approved. First phase $30000 to be followed by at least a two-year program at $50000 per year.

(4) Ulin. Institute For English Teachers, H.E.W. Approved. $56228.

(5) Wolf. Kettering Foundation. Research On Diffusion Vehicles. Approved. $100000.

(6) Anthony, Wolf et al. Training Research Grants in Curriculum, H.E.W. Approved. First year $90000. Probable $100000 each year for two additional years.

(7) Wyman. Center For Overhead Transparencies. Approved. First phase $29176.

(8) Wyman. Center For Research In Teaching Of Deaf. H.E.W. Approved. First year $60000. Approximately $120000 annually thereafter.

(9) Wyman. Mobile AV Center. Approved. First phase $6000. If report accepted, probable $90000 annually thereafter.

(10) Pippert. Developmental Grant In Special Education. H.E.W. $6000.

(11) Thelen, Wolf. Fellowships (8) in training teachers of Biology. $48000.

If the above projects all come through in their second phases as is anticipated the following funds should be available during the next fiscal year or a month or two beyond:

(1)	$ 380,181
(2)	8,000
(3)	50,000
(4)	50,000
(5)	100,000
(6)	90,000
(7)	29,176
(8)	120,000
(9)	90,000
(10)	6,000
(11)	48,000
	$ 971,357

Two or three other requests of the many others submitted still look quite promising. It seems that my estimate that we would have a million dollars in funded projects may be correct. Success in this field has been due to a considerable extent to Dr. Wolf who was appointed as an expert in writing projects and negotiating contracts and to Dr. Wyman who is rapidly becoming a national authority in his field of Audiovisual Education.

One of the dangers in the search for funded projects is that such projects will become ends in themselves and that finally the "tail will wag the dog". This point has not been reached yet in the School but the possibility cannot be ignored. If projects are written only in areas that are likely to be successful; if projects are drawn up only in the

way the sponsoring agency demands; if research is confined to large fundable projects then, indeed, Washington and the large foundations are determining the way research will go and to a degree the way training will go. We are hoping to prevent this outside domination by having a Future Directions Committee of our Faculty study preferred directions for the School. Once these directions are determined then funds can be sought for projects which will aid in implementing progress in those desired directions. In this way funded research will be an aid in meeting objectives and not a determinant of objectives.

Another consideration for concern is the housing of these projects. On the one hand we are enjoined to seek funded research and on the other we are questioned on whether we have room to house the project. Realism suggests that any research project of any size will require space. Should projects be turned down because we cannot "guarantee" that we will always be able to house them. If we did this we would seek no research money at all because it is obvious that in a few years the School of Education will be scattered all over campus just to take care of normal enrollment increases. It would hardly seem wise to have the School mark time on funded research until a new addition is available to house it. It would seem better to go ahead as best we can to develop this aspect of the School in the hope that some day the School's need for space will be recognized and something done about it.

MAINTENANCE

Since we entered our new building in September, 1961 the maintenance problems have been mostly small ones and projects have been requested when the need arose.

The one major problem which still has not been resolved is the state of the drapes. All the windows in the building have been fitted with two sets of drapes. Each set is now in very poor shape because the thread used in sewing on the holding hooks was obviously too light in weight.

The result has been that a large number of hooks have now become separated from the cloth and the drapes are hanging in all sorts of odd shapes. The result is disgraceful but we have been unable in two years to get anyone to accept any responsibility in the matter. It has now reached the stage where a decision should be made on whether it would not be better to remove the drapes entirely rather than to have them remain in their present unsightly state.

We have also reached the stage when it becomes necessary to draw up a maintenance plan for patching and repainting. Since the Mark's Meadow School is filled with children and since it is one of the most visited buildings on campus it appears reasonable to plan a complete refurbishing every six years. The following is suggested as a maintenance plan and each year work orders will be submitted to implement it. Needless to say, if this plan is not followed in any one year it will throw the whole scheme out of order:

Summer 1967. Fill in cracks and paint six classrooms.
Summer 1968. Fill in cracks and paint east-west corridor and observation corridor.
Summer 1969. Fill in cracks and paint remaining seven classrooms.
Summer 1970. Fill in cracks and paint kitchen and cafeteria.
Summer 1971. Fill in cracks and paint remaining rooms and corridors.
Summer 1972. Repeat painting for 1967.
Summer 1973. Repeat painting for 1968.

The remaining part of the building is occupied largely by college students and with the exception of the floors and the seemingly inevitable cigarette burns, should be kept in reasonably good shape on an eight year maintenance plan.

A suggested scheme for the School of Education part of the building would be:

Summer 1967. Filling cracks and painting classrooms, corridors and lobbies of main classroom floor.

Summer 1968. Filling cracks and painting offices and corridors of main office floor.

Summer 1969. Filling cracks and painting library and lobbies of patio wing.

Summer 1970. Filling cracks and painting classrooms and corridors of top classroom wing.

Summer 1971. Filling cracks and painting offices and and corridors of top office wing.

Summer 1972. Filling cracks and painting offices and corridors of patio wing.

Summer 1975. Repeat 1967.

SCHOOL OF EDUCATION

Faculty 1956 - 1967

Name	Rank	Rank To Start	Exp. Before School	Exp. Before Coll.	Exp. Here	Last Degree	
*Anthony, Albert	Prof.	Assoc.	2	13	9	Ed.D.	Harvard
Budde, Ray	Asst.	Asst.	18	0	0	Ed.D.	Michigan
Capelluzzo, Emma	Asst.	Asst.	8	1	0	Ed.D.	Arizona
Chenault, Joann	Assoc.	Assoc.	8	10	0	Ed.D.	Kentucky
Clegg, Ambrose	Asst.	Asst.	5	0	3	Ph.D.	North Carolina
*Eddy, Philip	Asst.	Asst.	0	0	7	M.A.	Chicago
Edgecomb, Philip	Asst. "A"	Asst. "A"	6	1	0	Ph.D.	Pennsylvania State
Fiorino, John	Asst.	Asst.	6	5	2	Ed.D.	Buffalo
Fredrickson, Ronald	Asst.	Asst.	3	0	3	Ph.D.	Wisconsin
Griffiths, William	Asst.	Asst.	13	1	2	Ed.D.	Pennsylvania
*Hall, Donald	Asst.	Asst.	13	1	6	Ed.D.	Boston University
Hillman, Thomas	Asst.	Asst.	4	0	3	Ph.D.	Michigan
*Jones, Robert C.	Asst. "A"	Asst.	12	1	6	Ed.D.	Cornell
*Kornegay, William	Assoc.	Asst.	5	1	8	Ph.D.	North Carolina
*McManamy, Mary	Asst.	Inst.	30	0	10	M.S.	U. of M.
*O'Leary, Helen	Assoc.	Asst.	20	0	12	Ph.D.	U. Connecticut
Parody, Ovid	Prof.	Prof.	27	0	0	Ed.D.	Teachers College
*Pippert, Ralph	Assoc.(Asst.Dean)	Asst.	10	4	7	Ph.D.	Wisconsin
*Purvis, Albert	Prof.(Dean)	Inst.	6	0	30	Ed.D.	Harvard

Romanella, Alan	Asst.	Asst.	10	0	1	Ph.D.	St. John's
Scher, Saul	Asst.	Inst.	6	0	1	Ed.D.	Teachers College
*Thelen, Leverne	Assoc.	Asst.	11	0	5	Ed.D.	Nebraska
Ulin, Richard	Assoc.	Assoc.	18	0	1	Ed.D.	Harvard
*Wellman, Robert	Assoc.	Asst.	1	3	4	Ph.D.	Ohio State
Winder, Alvin	Assoc.	Assoc.	0	6	1	Ph.D.	Chicago
Wolf, William	Assoc. "A"	Assoc. "A"	5	5	1	Ph.D.	Iowa
*Wyman, Raymond	Prof.	Asst.	13	0	17	Ed.D.	Boston University
Zaeske, Arnold	Assoc.	Assoc.	3	9	1	Ed.D.	Missouri
Zimmer, Jules	Asst.	Asst.	5	0	2	Ed.D.	Arizona
- - - - - - - - - - - - - - - -							
Schweiker, Robert	Vis.Lect.	Vis.Lect.	1	4	1	Ed.D.	Harvard
Spalding, Howard	Vis.Lect.	Vis.Lect.	43	0	0	Ed.D.	Teachers College
- - - - - - - - - - - - - - - -							
Case, Ethel	Inst.	Inst.	0	0	1	A.M.	Columbia
Hulsen, Albert	Inst. "A"	Inst. "A"	1	0	2	A.M.	Ohio State
King, Robert	Inst.	Inst.	4	0	3	M.S.	Bucknell
Lunney, Gerald	Inst.	Inst.	4	3	0	Ed.M.	St. Thomas
Rudman, Masha	Inst.	Inst.	6	1	1	M.S.	Hunter
White, James	Inst.	Inst.	8	0	1	C.A.S.	Harvard

*On tenure

SCHOOL OF EDUCATION

Non-Tenure Faculty

Name	Rank	Appointed	College Experience	Tenure Decision
Budde, Ray	Asst.	1966-67	0	1971-72
Capelluzzo, Emma	Asst.	1966-67	1	1970-71
Chenault, Joann	Assoc.	1966-67	10(3)	1968-69
Clegg, Ambrose	Asst.	1963-64	0	1968-69
Edgecomb, Philip	Asst."A"	1966-67	1	1970-71
Fiorino, John	Asst.	1964-65	5(3)	1966-67
Fredrickson, Ronald	Asst.	1963-64	0	1968-69
Griffiths, William	Asst.	1964-65	1	1968-69
Hillman, Thomas	Asst.	1963-64	0	1968-69
Parody, Ovid	Prof.	1966-67	0	1971-72
Romanella, Alan	Asst.	1965-66	0	1970-71
Scher, Saul	Asst.	1965-66	0	1970-71
Ulin, Richard	Assoc.	1965-66	0	1970-71
Winder, Alvin	Assoc.	1965-66	6(3)	1967-68
Wolf, William	Assoc."A"	1965-66	5(3)	1967-68
Zaeske, Arnold	Assoc.	1965-66	8(3)	1967-68
Zimmer, Jules	Asst.	1964-65	0	1969-70
- - - - - - - - - - - - - - - - - -				
Schweiker, Robert	Vis.Lect.	1965-66	4(3)	1967-68
Spalding, Howard	Vis.Lect.	1966-67	0	1971-72
- - - - - - - - - - - - - - - - - -				
Case, Ethel	Inst.	1965-66	0	1970-71
Hulsen, Albert	Inst."A"	1964-65	0	1969-70
King, Robert	Inst.	1963-64	0	1968-69
Lunney, Gerald	Inst.	1966-67	3	1968-69
Rudman, Masha	Inst.	1965-66	1	1969-70
White, James	Inst.	1966-67	0	1970-71

APPENDIX A

1. Appropriations - Education

	1962 - 63	1963 - 64	1964 - 65	1965 - 66
03	22000	29940	42665	28000
10	5000	5500	9200	6700
11		37	22	600
12	1000	1000	1000	1000
13	5700	6250	7255	9800
14	1400	1400	1400	2400
15	5000	7500	8210	1000
16	400	225	300	300
Library	6000	7000	11000	5000 + ABC
	46500	58852	81052	54800 + ABC

Appropriations - Audiovisual

03	700	2500	2500	1900
10	200	500	550	550
11	500	200	200	200
12	1200	3500	3500	3500
13	4000	5400	6300	6300
14	350	600	300	550
15	2530	5000	5000	5000
	9480	17700	18350	18000

2. Personnel - Teaching - Education

Instructor	1	3	3	4
Instructor "A"			1	1
Asst. Prof.	12	14	17	13
Asst. Prof. "A"	1	1	1	1
Assoc. Prof.	3	3	2	7
Assoc. Prof. "A"				1
Professor	3	3	3	3
Professor "A"		1		
Visiting Lecturer				1
Dean, Assistant			1	1
Dean, Head	1	1	1	1
Positions Unfilled				2
	21	26	29	35

Personnel - Other - Education

Electronic Tech.	1	1	1	3
Technical Asst.				1
Principal Clerk			1	1
Sr. Clerk-Sten.	1	1	1	1
Jr. Clerk-Sten.	3	4	5	7
	5	6	8	13

Personnel - Audiovisual

Asst. Director	1	1	1	1
Staff Assistant		1	1	1
Radio Maint. Super.	1	1	1	1
Tech. Assistant	1			
Electronic Technician	1	1	2	2
St. Clerk-Typist	1	1	1	1
Jr. Clerk-Typist	1	1	1	1
	6	6	7	7

APPENDIX B

EDUCATION 51 History of Education

YEAR	UND. F	GR. F	TOT. F	UND. S	GR. S	TOT. S	TOT.
57-58	119	7	126	88	2	90	216
58-59	140	9	149	115	6	121	270
59-60	151	5	156	124	7	131	287
60-61	136	9	145	132	9	141	286
61-62	197	16	213	152	10	162	375
62-63	229	8	237	137	10	147	384
63-64	276	26	302	176	13	189	491
64-65	304	24	328	238	11	249	577
65-66	325	30	355	301	6	307	662

Increase 206%

APPENDIX C

(a) Number of majors (Elementary)

September 1958	274
September 1959	331
September 1960	397
September 1961	426
September 1962	448
September 1963	485
September 1964	607
September 1965	695

Increase 154%

(b) Number of students taught

	First Semester			Second Semester			Year Total'		
YEAR	Ungrad.	Grad.	Tot.	Ungrad.	Grad.	Tot.	Ungrad.	Grad.	Tot.
1958-59	436	183	619	476	212	688	912	395	1307
1959-60	545	225	770	547	189	736	1092	414	1506
1960-61	553	197	750	598	203	801	1151	400	1551
1961-62	748	239	987	741	223	964	1489	462	1951
1962-63	866	277	1143	814	323	1137	1680	600	2280
1963-64	903	402	1305	890	459	1349	1793	861	2654
1964-65	1023	666	1689	1035	665	1700	2058	1331	3389
1965-66	1062	776	1838	1066	951	2017	2128	1727	3855
				Increase 58-65			1216	1332	2548
				Increase % 58-65			133	337	

ANNUAL REPORT

1965 - 1969

SCHOOL OF BUSINESS ADMINISTRATION
UNIVERSITY OF MASSACHUSETTS

A. Agenda

B. Business Agenda

C. Report of Association

School of Business Administration
University of Massachusetts

PROLOGUE

The past two years and particularly the year of 1965 - 1966 have been very productive for the School of Business Administration. Although it would be obvious to anyone that we have not achieved the heights of Parnassus, still we have achieved much, but most of all we have fully covered the transition period from purely a teaching institution to one of teaching, research and a greater degree of public service. I would emphasize:

1. The appointment and maintenance of highly qualified faculty.
2. The receipt of more, although not generous, research grants.
3. The increasing scholarly productivity of the faculty.
4. The establishing of our Center for Business and Economic Research and the appointment of a Director, Dr. George Simmons, formerly of Columbia University Graduate School of Business.
5. The final touches on our Ph.D. proposal by our faculty and our Graduate Committee and the imminent acceptance of the proposal by the Board of Trustees. We view this as one more step in our progress toward the status of a fully fledged School in a State University.
6. The first meeting of our Business Advisory Council was held in April, 1966. The matters of mutual interest were explored and the groundwork for another meeting next October was laid. A list of the present membership will be found in Appendix B.
7. I do wish to add the welcome fact that the quality of our students is rising. Many more of our students are found in the 3.0 cumulative average and above. For the first time in these past nine years we have had a few students who graduated Magna Cum Laude and more in the Cum Laude class. It takes time but the rising quality of our

faculty must have some bearing on the quality of students. As Schools of Business Administration lose their former "image" as mere trade schools and move into a higher level of educational achievement we not only attract better students but a finer faculty.

Since I shall retire (and resign) as of July 31, 1967 I wish to indicate that the steps leading to our present status have been part of a general plan. First, this School needed accreditation by the AACSB, both on the undergraduate and graduate level. This School needed a scholarly faculty capable of leadership and capable in being available to leaders of Business as well as Government. This leadership is increasingly in evidence. The danger of Schools of Business Administration in this country has been the undue and exaggerated deference to business enterprise to the neglect of excellence in scholarly activities. Respect is not won this way, whatever else is won. It has been my function as a Dean to achieve mutual respect rather than publicity for a quality not yet achieved. With the aid of good people, with the sympathy and support of an excellent President and Provost, I feel we have made tremendous progress in a number of avenues.

Whatever are the necessities of a State University in public service the chief and never ending obligation is as an educational institution. Whatever we do and whatever we wish to do must be done on a University level or we have no reason for existence. Our public service (of which the University of Massachusetts is terribly deficient we all know) must be to raise the sights of the public, to influence standards so that the general public will recognize its State University as the location of learning, of excellence, of public contribution and worth. It is obvious at this point of history that the public of the Commonwealth of Massachusetts and its General Court do not yet know of or wish an excellent University. It is clear to me that the corrupting past relationship prior to the Autonomy Act has too many scars over. In addition there is

always the deference paid the private colleges and universities. No doubt the whole environment will change. We know it is better than it was, but so is the whole University. Our needs and our qualities still outstrip the vision of the public and the interest of the General Court. I am only sorry that I shall not be here long enough to participate in any spectacular change when, and if, it occurs.

SOME FACTS AND FIGURES

1. Appropriations

	1963-1964	1964-1965	1965-1966	
03	$8,200	$11,400*	$21,900	($9,700)**
10	1,700	1,800	3,800	(1,800)**
11	100	100	100	
12	600	600	1,200	
13	2,200	2,200*	3,200	
14	3,100	3,500*	4,660	
15	1,000	500	1,000	
16	150	600	100	

* Deficits in these accounts were covered by the Provost.

** Original allocation.

2. Faculty and Graduate Assistants

	As of September		
	1963	1964	1965
Professors.....	5	7	8
Associate Professors.....	8	8	11
Assistant Professors	9	13	13
Instructors.....	2	3	5
Graduate Assistants.....	9	10	18

Note: These figures include faculty on leave of absence:
Two Professors and One Assistant Professor in 1964;
One Professor and One Assistant Professor in 1965.

3. Students

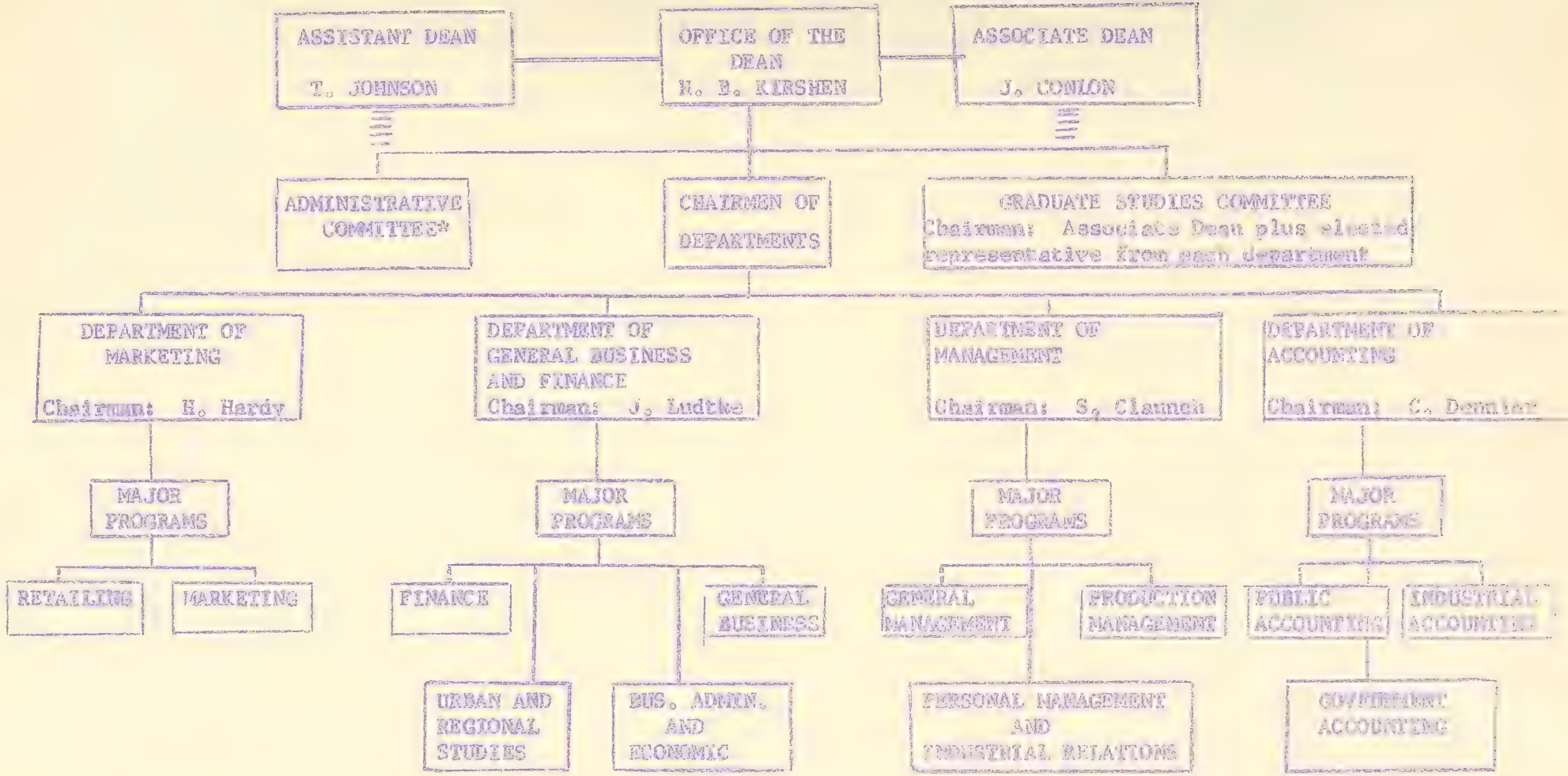
	As of September		
	1963	1964	1965
Accounting	88	114	148
General Business and Finance	59	57	73
Management	69	87	148
Marketing	63	56	78
Freshmen*	142	144	196
Sophomores*	173	248	260
Graduate Students	47	82	103
Total students on campus	641	788	1,006
Graduate students at Pittsfield	46	42	45
Total students taught on campus	1,638	1,955	2,300

* Students select their majors in the second half of their sophomore year. It should be noted that our Sophomore class is almost invariably larger than our Freshman class due to transfers from both inside and outside the University.

Enrollments in Schools of Business Administration levelled off between 1959 and 1964 but are now rising, particularly is this true of our School. As in other fields, graduate enrollments are rising at a faster rate. We have between 9.5 and 10% of the total University enrollment but if one excludes women our per cent is between thirteen and fourteen of the men.

C. Organizational Chart
June, 1966

SCHOOL OF BUSINESS ADMINISTRATION



*Includes the Dean, Associate Dean, Assistant Dean and Department Chairmen. Beginning July 1, 1966 our Director of the Center for Business and Economic Research will become a member of the Administrative Committee.

FACULTY AND DEPARTMENTAL ACTIVITY

Because I feel that the statement in the 1964-1965 Report is still pertinent I am including it here again with very few changes. A Dean, like a Provost and a President is, in part, a welfare institution as well as an administrator with a conscience of skill and competence. It is an old art, well understood among administrators that one can weaken and/or destroy any School or College or Department by the simple means of withholding support or expecting tremendous contributions and results even with the very minimum of financial allocations.

"A strong faculty is a demanding faculty and this is as it should be however difficult this may appear to administrators. It is almost axiomatic that the stronger the faculty the less economic considerations such as budget limitations are taken into account. The day has almost gone by when faculty recognizes financial constraints. This is not because the current generation of faculty think in utopian terms but because the stronger among them are mobile and do not mind transfering to that university that offers the most. This is only part of the reason noted by many that loyalties to Schools and Universities are weaker than loyalties to subject matter and professional associations and colleagues. A 'Community of Scholars' has more scholarship and less community these days. This is an academic fact of life and makes the job of Deans and other administrators different than in the past. Reliance on dedication, loyalty, close ties and 'spirit' is less a positive factor than reliance on support of research, access to stenographic help, association with 'teams' of one's own professional colleagues, association with graduate assistants, participation in academic policy and the like. It is quite remarkable that it seemed to take so long to recognize this fact. But it is a basic principle that a scarce resource relative to other resources, must be conserved, paid for in higher values and recognized as strategic. A present day faculty is such a resource and his association with other scarce resources such as laboratory equipment, research grants, professional meetings

ad infinitum is valued more highly than beautiful scenery (there are exceptions, of course) and intelligent administrators. The latter 'must deliver' or the most lovable among them means nothing. The art of "Human Relations" without financial support is the art of living in Heaven or Utopia but not on this earth."

Our faculty has been very active this past year on School and University Committees, in their own professional meetings as speaker and panelists, in research and publication, in teaching as evidenced by experiments in new methods and in emphasis in the quantitative and behavioral sciences, also the computer. In addition a number of our faculty participated in programs sponsored by the Personnel Division and the Commissioner of Finance and Administration at the State House. We are pleased that our State Government is finally discovering us and is willing to move away from Boston for aid in its programs.

Increasingly are business firms seeking our aid for research projects and for consulting. Particularly is this true for the Mass Merchandising Industry. I shall expand on this under the Special Programs heading. I have received many calls from various firms asking whether we had Executive Training Programs. Aside from the JET Program we do not, but expect to within the next two years now that we have faculty to have such programs on the level essential for success. Our new Director, Dr. George Simmons, has a wide acquaintance with Foundations and leaders of corporations and will be helpful in these aspects of public service as well as in fundamental research for our faculty.

Publications, Activities and Research by Departments - (Please see Appendix A).

SPECIAL PROGRAMS

1. Twenty-eight young businessmen from Europe and other countries are participants in our eighth JET (Junior Executive Training) Program financed, under our jurisdiction by the Experiment in International Living. These students stay with us for six weeks and take courses in Management, Finance, Quantitative Methods, Marketing and Industrial Relations. Professor Robert Lentilhon is the Coordinator who, with the aid of a faculty committee planned the Program. Next year Professor Harry Allan will replace Professor Lentilhon as Coordinator.

We were pleased that Professor Lentilhon was selected to visit Sweden for a month's stay in a program of "The Experiment," financed substantially and sponsored by Swedish businessmen.

2. Mr. Hale Dodds, Instructor in the Department of Marketing, planned a very successful School of Business Administration Colloquium this season. On the program were:

Fall Semester, 1965

October 18 Professor John Dunlop, Department of Economics, Harvard University: "The Future of Labor-Management Relations."

November 9 Dean David Moore, New York State School of Industrial and Labor Relations: "The Enterprising Man."

December 2 Robert Jones, Vice President and Comptroller of the New England Telephone Company: "Bell System Financing and the Role of Profits."

Spring Semester, 1966

February 24 Professor John Howard, Department of Marketing, Columbia University: "The Theory of Buyer Behavior."

March 15 Professor John Dearden, Professor of Business Administration, Harvard University: "Potential Impacts of Computer Technology on Management."

April 26 Dean Clarence Walton, School of General Studies, Columbia University: "Values in Administrative Decisions."

3. The Mass Merchandising Conference, jointly organized and sponsored by an Industry and School Committee, was held at Atlantic City April 25, 26 and 27, 1966. Professor Robert Drew-Bear was Chairman of our committee. This year a number of our faculty participated either as speakers or as panel members. Professors Allan, Demmler, Drew-Bear, Michael, Shapino, Wolf and Young.

This year the Industry formed the Mass Merchandising Research Foundation and initially gave us a grant of $7,500 for research purposes . It is the intention of the Foundation to establish a fund between $30,000 and $50,000 that will be offered our School for research. We have a committee actively working on projects. All such grants will be under the jurisdiction of our Center for Business and Economic Research. We hope, of course, that these grants will be furnished by other industries to aid us in supporting research and our graduate work.

Although Schools of Business Administration furnish industry in this country with about 16% of students with bachelor's degrees the amount of industry financial support, or that of government, comes to less than 2% of all grants allocated. As we know the great bulk of all money goes to the Sciences and Engineering. No doubt the day will come when the importance of the skills and learning essential for management will receive greater attention. This is not to deny the great importance of Science and Technology but there is no automatic relationship between learning and sophistication in these areas and the necessities in management.

As we move into higher standards for both faculty and students and greater University support in facilities and equipment,we shall receive a greater share of corporate and government support.

4. Under the joint Chairmanship of Associate Dean Conlon, Director Dan Seligman and Associate Director Harvey Friedman of the Labor Relations and Research Center about 300 attended a very successful Arbitration Conference for Labor and Management representatives. A second Conference will be held sometime in the fall.

5. We are continuing, now on a full time basis, our work in Report and Case Writing for our graduate students. Mr. Dwight Little, a doctoral candidate in English, will join our faculty as a Lecturer in Case Writing. So far we are pleased with the results. Mr. Little grades the writing part of all case reports in our graduate classes, he aids those students needing correction and holds classes for all students both collectively and individually. It is generally agreed among our faculty that there has been a great deal of improvement shown among students. Other Schools of Business Administration have shown an interest in what we are doing.

6. Although a Ph. D. Program may not be considered "Special", it is at the moment Special for us and I shall describe it briefly.

When fully approved we shall be the first State University in New England to have a doctorate in Business Administration, indeed there are only a few offered in the Northeast. We feel we are prepared for this significant step. We envision our attracting graduate students, particularly those who desire to enter the academic profession and we also feel confident that we shall attract and hold excellent faculty. Whether or not this ought to be so, it is. Excellent graduate work not only strengthens the undergraduate program (I deny the orthodox view on this) but enhances the intellectual environment of the School and University. With the increasing sophistication of business enterprise there is constant need for the higher levels of education, for the greater abstract and theoretical formulations as applied to concrete business problems and issues. With few exceptions the day of the self made man is past and the day of a minimum education in business is also past.

Our Ph. D. Program has two main parts. The first year is generally made up of required courses. The student will study both the quantitative and behavioral aspects of Business Administration. He will study Systems, Decision Models and Research Methods, and also advanced Economics. In short, the first year is interdisciplinary and not specialized.

Specialization will come the second year when the student may choose among a number of areas such as Information and Control Systems, Quantitative Management Science, Accounting, Finance or Marketing to mention a few.

Written examinations and orals and the thesis will top the process. Given our present and future faculty we expect a great deal of our graduates for a sound program of high quality.

FUTURE PLANS AND NEEDS

1. I wish to emphasize and repeat here my concern expressed many times that no program in Business Administration or anything substantially like it under another name should be established at the Boston Branch without the participation of the Dean and the School of Business Administration. I understand that nothing will happen without our knowing about it, but I worry about it anyhow. From my knowledge of the Faculty at the University of Massachusetts Boston, there is no one who has insight into the meaning of Business Administration nor the experience to develop a program even under the heading of novelty, uniqueness or innovation. I think that whatever happens in Boston will have a very important impact on us here. Since any new Dean that succeeds me will obviously know AACSB standards, he will have more than a passing interest in Boston as well as the parent University and School.

2. One of the great essentials for our School is the need for a new building, primarily a building for graduate work including a Library. Given the development of this School and its reaches into a Ph.D. Program as well as an increase in undergraduate enrollment it is utterly amazing to me how little interest there appears to be in more space and facilities for us. How fortunate the University was in having our present building! Think of the moves it does

is such a thing) time table. After receiving planning money it takes a year to get the capital outlay, then about a year in planning and designing the building, then two years in the building of it. If the initial money came in 1967 we could move into the building in 1971. All I can state is that there is going to be a terribly tight squeeze. And if there has got to be a squeeze all around the University it is high time that the School of Business Administration is given priority among those being squeezed. I have listened to a lot of fancy words and thumping sounds and looked at well done charts but I remain unimpressed that any of this table thumbing should place the School of Business Administration in a subsidiary position. Unless plans for a new building are firmed for 1966-1967 the situation will become desperate in the sense that the School of Business Administration will be severely limited in the role it must, or should play, in the future of the University of Massachusetts.

3. These past few years I have been convinced that Schools of Business Administration must play a more important part in the relationship between the Fine Arts and Business Administration. As more and more of our students will, in later years, be in a position to review designs for buildings, art objects and landscaping they must have more than a minimum appreciation of design, form and the esthetic qualities of a civilization. Businesses are sponsors and patrons of the arts and it must be that businessmen might avoid much of the crude and ugly aspects of structures, of radio and TV programs, of gaudy and spurious advertising. We have not yet impressed students with this essential, this real need. Indeed we are fortunate if we can impress many of our University students to appreciate and respect the beauty of their campus and the quality of our buildings. I feel that our educational efforts are still puny concerning the job to be done. I can envision the time when Schools of Business Administration will take the leading part in the development of the fine arts as related

to our industrial civilization. Rather than damn our civilization as is now done in many quarters of the Humanities, these fields with us, might very well work toward a finer quality of industrial life on which all of us depend irrespective of what trade, profession, art we may be a part. Even Beatniks strumming guitars need some company to manufacture the precious instrument on which they might sing their songs of protest and folklore.

This next academic year I shall propose to our faculty the development of a curriculum concerning the Fine Arts and Business Administration.

4. We have come to the point in our development where we can seriously consider Executive Development Programs. We receive constant inquiries both from industries within and outside the Commonwealth. Such Programs can be valuable, also a gimmick as well as costly. There are Schools that have refused to have such programs, The Tuck School, for instance. Many large companies, however, appear to consider them important, although most studies indicate that it is difficult to appraise their value. This is an area, as in Education generally, where it is extremely difficult to measure concrete results. It is easier to state likes and dislikes. In any event we should carry on our own experiments with the programs. No doubt they establish an important path to various industries and that fact can be valuable for both parties.

It is well to state that Executive Development Programs require resources, mostly highly qualified faculty. Usually no additional faculty are required although Harvard and MIT have Directors of Programs and some faculty are on "released time." I have heard some mild "griping" that the programs took faculty away from teaching and research. When one tries to allocate valuable limited resources (including faculty) problems of priorities naturally result. Is it better to announce to the public that X University has a program for the Du Pont Executives or have the faculty for teaching and research? For even if the Du Pont Company should establish a Research Grant, this also means

added faculty and facilities as we all know. I doubt if any of us has consciously, yet, studied the priorities of our resources. We have done this within the School but not with reference to the University.

Among future plans and needs I would place high on the list the great need for a thorough study of faculty salary administration. I think we need an overall series of guides for Schools and Colleges. The problem is difficult at best and no guide can be so specific and so crystal clear so that anyone, at anytime, can get an answer to a concrete problem. But there is need to do more thinking about salaries and differentials among ranks including administrative positions. I realize that we cannot lose valuable people and that the academic market is controlling as faculty are mobile and can move anywhere at the sound of more money. But it still has a terrific impact on all of us when salary increases are made outside the usual period, particularly if made in any wholesale fashion to any one department. I appreciate the necessity and defend the decisions, but I could defend them with a greater degree of rationality if I knew more about the necessities in advance, at least, as expressed in general guidelines and University policy.

We know, given the way we now use our Reading Room, that there is an urgent need of upgrading our present resources into a species of Sub-Library. It is that now, except we cannot receive the Library services we desire and the Library's professional attention as long as we are looked upon as having only a Reading Room. A recent survey, as our Provost, Dr. Tippo, knows, has disclosed the fact that our Room can hold from 12,000 to 13,000 books and periodicals. We could hold much more by using taller cases. Even this Library would not be substantial, but it would be far better than what we have. Furthermore I object now and have always objected to the low status accorded our needs in library resources. Not that

Hugh Montgomery is unsympathetic. He is not. Indeed he is very helpful. But he works within the limitations imposed by present policy.

I cannot complete this Annual Report without expressing, warmly and with great satisfaction, a Dean's respect for each and every member of the faculty and administrative person in the School of Business Administration. The tremendous successes of our Chairmen in recruiting excellent new faculty (we had our deep failures too) will be in evidence for years to come. To Associate Dean Conlon we owe a brilliant organizational feat in bringing together faculty and committees to hammer out a Ph. D. Program of which this University can be proud. To Assistant Dean Thurlo Johnson I wish to pay tribute for bringing order out of a fragmented Advising Program. Much remains to be done but his insight and awareness of that fact keeps us from becoming smug.

The Administrative Committee composed of the Associate Dean, Dr. Conlon, Assistant Dean Johnson, Chairmen: Professors Claunch, Dennler, Hardy and Ludtke, has been a "right hand man" significant always for valuable advice but mostly because no "yes men" exist on it. This is an institution of the School that is relevant, effective and continuing. This Report, this Dean and this School could not be the same without these men and their relationships with our faculty.

Respectfully submitted,

H. B. Kirshen
Dean

HBK:EA

APPENDIX A

Grants, Research, Publications and Faculty Activity

The following is more a good random sample of faculty activity than a complete list of all that has happened to each and every member of the faculty as well as in what activities the Dean, Associate and Assistant Deans participated. All of us have had our share of conferences, speeches, panels and professional meetings. I doubt if any of us can be accused of professional provincialism. I see no need of listing everything in this Annual Report. Our forms are quite complete that we send to the Provost for tenure, salary and promotion purposes. Indeed there may be some way these can be attached to an Annual Report or a cross reference be made. In addition, we have appointed a number of new men prior to the beginning date of this Report but whose research, publications and activities are not here reported.

Department of Accounting

CONFERENCES

All members of the Accounting Department, except Professor Mulling, attended the Northeast Regional Meetings of the American Accounting Association at Columbia University, April 22 & 23, 1966.

Professors Dennler and Pion attended the American Economic Association meetings in New York, December 27 - 29, 1965.

Professor Dennler attended the meetings of the American Accounting Association in Norman, Oklahoma, August 29 - September 1, 1965.

FACULTY ACTIVITY

John Anderson: Member of the Education Committee of the Mass. Society of CPA's.

Chairman of the Department September 1965 - February 28, 1966.

Carl Dennler, Jr.: (Chairman)	Discussion leader for NAA Seminar in New York City, March 26-29. Subject: "Pricing Policies and Decisions: Techniques and Practice".
	Panelist, Mass Merchandising Conference. Subject: "Operating Statistics for 1966".
	Manuscript review for McGraw-Hill Book Co., "Regression Mathematics" by Dennis T. Cox
Robert Lentilhon:	Article: "Results of a Questionnaire Survey Sent to Accounting Graduates of the Univ. of Mass.", College and News & Views, Vol. XIX, No. 3, pp. 15-16, March 1966.
	Co-ordinator of JET Program, 1966.
Anthony Krzystofik:	Named most valuable member of the year of the Springfield Chapter of the NAA.
	Publication Committee member, Mass. Society of CPA's.
	Harvard Case Study Program, summer 1965 (wrote a case which will soon be published).
	Instructor, Staff Training Program sponsored by AICPA.
	Moderator of a panel in October, 1965 and panelist in April, 1966 for NAA.
	Holds office of Auditor of Mass. Society of CPA's
	Chairman of General Business & Finance Committee for selection of department chairman.
James O'Connell:	Chairman of Accounting Careers Council, Control #22 (Mass.)
Frank A. Sanger:	Ford Foundation Fellowship Grant, 1965-66.
	Publications: Articles: "Progress in Programmed Instruction," The Accounting Review, Vol XL, No. 4, pp. 847-853, Oct. 1965.
	"A Note on 'Teaching Approaches to Elementary Accounting'", The Accounting Review, Vol. XLI, No. 1, pp. 133-134, January, 1966

Department of Accounting

(continued)

Frank A. Singer: (continued)

Co-author: Cohen, K.J., Gilmore, T.C., and Singer, Frank, A. "The Use of a Computer in Credit Evaluation of Bank Loan Applications", Bulletin of the Robert Morris Associates, Vol. 48, No. 4, pp. 206-220, December 1965.

Books and Contributions: Co-author: Cohen, K.J., Gilmore, T.C., and Singer, Frank A. "Bank Procedures for Analyzing Business Loan Applications" Analytical Methods in Banking, R.D. Irwin & Co., 1966, pp. 219-269.

Department of General Business and Finance

FACULTY ACTIVITY

James Ludtke: (Chairman)

Completion of 29 revised chapters of a text...American Financial Systems, the first edition published by Allyn and Bacon.

"Deposit Activity at Savings Banks" (A paper delivered at the Harvard Workshop in Finance, Summer, 1956).

Larry Allen:

"Organization Theory, Sociology of Law, and Business: Divided Parts of the Same Field?" in American Business Law Journal, Vol. 4, Spring, 1966, pp. 39-51.

"An Empirical Test of Choice and Decision Postulates of the March-Cyert Behavioral Theory of the Firm", accepted by Administrative Science Quarterly.

Review, accepted by American Business Law Journal, of the Management of Conflict-Appeal Systems in Organizations by William G. Scott.

Textbook in Business Law with N. Richard Hartzler, Tentative title: Basic Legal Dimensions of Economic Management. Contract with Scott-Foresman. pp. 550-600.

Participated, with Steven Michael, in a program sponsored by Mr. McCarthy, State Commissioner of Finance and Administration.

Pao Cheng:

"Toward a Theory of Competition by Promotion Among Financial Firms" in New Research in Marketing, Lee Preston, Ed., Institute of Business and Economic Research, University of California, Berkeley, 1965, pp. 17-28.

"Conflict Bargaining and Zeuthen's Principle." Accepted provisionally by Management Science.

"Strategy Augmentation and Stability of Cooperation" in Research in Experimental Economics, Vernon Smith and L. Love, editors, Carnegie Institue of Technology. To be published in the fall, 1966.

"Risk, Aspiration Level and its Social Adjustment" in Hands of Behavioral Science for reading.

Book: Mathematical Statistics for Management to be published by Allyn and Bacon.

Department of General Business and Finance

(continued)

H. Richard Hartzler: See item under Harry Allan. (Text in Business Law)

"The Need for Legal Scholars and a Suggested Source," accepted by the Journal of Legal Education. (Accepted)

Robert Rivers: "Airport Management: The Job and the Man," The Transportation Journal. Due Winter, 1966 issue.

"Moving Household Goods: Customer Carrier Relations." Submitted to Business Topics, Michigan State University.

Ward Theiman: "Gold Preference and International Reserves," Iowa Business Digest, March, 1966, pp. 9-12.

"Leverage Ratios and Debt Capacity." Accepted provisionally by the Southern Economic Journal.

Department of Management

FACULTY ACTIVITY

Sidney Claunch (Chairman)

Research in Location Theory and in International Business.

Jordon Chen:

Principal Investigator of a Proposed Project on the "Cost Benefit Analysis of the AFDC Program in Massachusetts" under the joint sponsorship of the Labor Relations Center and the School of Business Administration.

"Careful Casting Company" case, Bibliography of Cases in Business Administration, Vol. X, 1966. Intercollegiate Case Clearing House (Harvard).

Research paper "Simulation of Production Inventory System in the Automotive Industry" presented at Ford Foundation Faculty Research Seminar, Cornell University, August, 1965.

Research paper "Logical Constraints of Organizational Communication Systems" to be presented at the 13th International Meeting of the Institute of Management Sciences, Philadelphia, September, 1966.

Invited to participate in the Steel Industry Economic Seminar, University of Chicago, August, 1966.

Arthur Elkins:

"Personnel Management: What It Is and Its Value To Your Hospital Organization," Hospital Progress, Vol. 47, No. 6, June, 1966, p. 77.

Director of the University Honors Program

Completing Thesis for the D.B.A. degree, Indiana University.

Steven Michael:

Presented a paper "Management Audits--What Government Can Learn from Industry" on a panel at the 1966 National Conference on Public Administration, Washington, D. C., April 14, 1966.

Consultation with Office of Commissioner of Administration and Finance of the Commonwealth of Massachusetts on training programs for middle and top administrators in State Government, February - March, 1966.

Department of Management

(continued)

Walter O'Donnell

"Private Enterprise Confronted with the Challenge of The Future" (In Spanish) Address to the Fifth Inter-American Conference in Lima, Peru published in 1965 in Anales del Instituto Peruano de Administracion de Empresas.

"The Development of Institutional Values" paper presented at the meeting of the College of Management Philosophy at the XII International Meeting of the Institute of Management Sciences, Vienna, Austria, September, 1965.

"International Management and Emerging Community of Nations" published in a special New Year's edition (1966) in a Japanese (CIOS).

Stanley Young:

Management: A Systems Analysis, Chicago: Scott-Foresman, 1966, pp. 450.

"Manpower Training-Some Cost Demensions." Research Monograph, Office of Education, 1965, pp. 1-70.

"Organizational Decision Making," Hospital Administration, Fall, 1965, pp. 38-65.

Occasional Research Reports: "Unions in a Laboristic Society." St. Louis University, 1965, pp. 1-13.

"Management Authority in Employment Relationship," Readings in Personnel Administration, 1966.

"Designing Management Systems" from the American Management Journal to be included in Prasad, Modern Industrial Management to be published later in 1966.

Participated, as speaker, in a Collective Bargaining Seminar sponsored by the State Bureau of Personnel and Standardization.

Serving as Chairman of the Research Committee of the Academy of Management, 1966.

Department of Marketing

FACULTY ACTIVITY

Harold Hardy: (Chairman)

ABS Carbon Company (With Professors Chen and Zane) Case in Intercollegiate Bibliography, Cases in Business Administration, Vol. X, Intercollegiate Case Clearing House (Harvard).

Participant in Sales and Marketing Executives-International, Educational Round Table, Boston, May 1-4, 1966.

Member, Educational Committee, Eastern Regional Conference of American Advertising Agencies Association.

Hale Dodds:

Chairman of the School of Business Administration Colloquium Committee responsible for organizing program, inviting distinguished speakers.

Robert Drew-Bear:

On sabbatical leave for 1965-1966 but active in a number of ways:

Consultant for Zayre's Discount Department Stores and considered an authority in Mass Merchandising, presently writing a book on its origins and development.

Chairman of the School Committee responsible, with the Industry Committee, for the Conference of the Mass Merchandising Industry at Atlantic City, April, 1966.

George Schwartz:

Development of Marketing Theory, translated into Japanese and published in Japan, 1966.

Development of Marketing Theory, published in the International Business Management Series for sale in Europe, 1966.

Member: Marketing Abstracts Staff, Journal of Marketing.

Addresses: Massachusetts Chapter of the AMA, November, 1965.
National Institute of Accountants, Springfield, 1966.

Invited to participate in National Marketing Theory Seminar, University of Vermont, August, 1966.

Department of Marketing

(continued)

George Schwartz: (continued)

Invited to deliver a paper at the National Conference, American Marketing Association, Indiana University, September, 1966.

Irwin Shapiro:

Delivered paper "Applying the Marketing Concept to Mass Merchandising" at Mass Merchandising Conference, April, 1966.

Jack Wolf:

Will be Acting Chairman of the Department beginning September, 1966.

On panel of the Mass Merchandising Industry Conference, 1966.

Co-Chairman of the Research Committee of the Mass Merchandising Research Foundation.

"Academic Research and the Data Drought Dilemma" (with Charles Hinkle), Journal of Marketing Research, Vol. 3, May, 1966, pp. 196-198.

Appendix B

Business Advisory Council

Mr. Charles A. Campbell.....Vice-President, I.B.M. World Trade Corporation
821 United Nations Plaza, New York 17, New York

Mr. Harold Elder.....Owner, Mutual Plumbing and Heating Company
63 South Pleasant Street, Amherst, Mass.

Dr. George Ellis.....President, Federal Reserve Bank of Boston
30 Pearl Street, Boston, Mass.

Mr. Fred Emerson.....University of Massachusetts Trustee
Vice-President, Spartan Saw Works Inc.
152 Fisk Avenue, Springfield 7, Mass.

Mr. Robert Harper.....Vice-President and General Manager
Greenfield Tap and Die, Greenfield, Mass.

Mr. Abe Marks.....President of Hartfield Stores, New York City
Chairman, Board of Trustees: Mass Merchandising
Research Foundation

Mr. Roger Putnam.....Chairman of the Board, Package Machinery Corporation
East Longmeadow, Mass. 01028

Dr. Leonard Silk.....Economist and Vice Chairman, Editorial Board
BUSINESS WEEK
330 West 42nd Street, New York, New York

Mr. Philip Singleton.....President, Pro-phy-lac-tic Brush Company
Florence, Massachusetts

Mr. Herman Stuetzer, Jr.....Partner, Lybrand Ross Brothers and Montgomery
80 Federal Street, Boston 10, Mass.

Dr. Stanley Teele.....Former Dean of the Graduate School of Business
Administration at Harvard, and now
Treasurer of Amherst College
Amherst, Mass.

Appendix C

FROM: John T. Conlon, Associate Dean DATE: June 7, 1966

TO: Dean H. B. Kirshen

SUBJECT: Graduate Program

1. Our major undertaking this past year was the drafting and submission of our doctoral proposal. Because of the great effort and contribution of so many of our faculty, this proposal has been called by many the most impressive such proposal submitted in recent years. With authorization to introduce this program, and with the quality of faculty we now have and will continue to attract, we are now in a position to make a significant contribution to the field of business education and business research.

2. Another development of importance is the development of joint programs with other areas within the University. The first of these was in the M. S. in Labor Studies Program in cooperation with the Labor Relations and Research Center. More recently we have collaborated with the Industrial Engineering Department to offer a joint program in Management Science - Operations Research.

3. Applications for and enrollment in our master's degree programs continue to expand. Our graduate student body grew from 80 in the fall semester 1964, to 99 in the fall 1965. The M. S. Program in Accounting is now well established. Our graduate program in Pittsfield remains strong. Moderate, but continued growth in all programs is anticipated.

4. Because of developments at the graduate level we have now appointed a Director of Graduate Studies.

5. Our long range plans, say for the next five year period, include:

   a) successful introduction of a quality doctoral program.
   b) probable introduction of the previously authorized M. S. in Finance Program.
   c) reduction of teaching loads of the Graduate Faculty to six hours, in part to compensate for their activities on Guidance Committees.
   d) continued development of cooperative graduate programs with other departments within the University (e. g. a five year combination B.S. - M.B.A. with Industrial Engineering).

ANNUAL REPORT

OF THE

SCHOOL OF ENGINEERING

1 July 1965 - 30 June 1966

UNIVERSITY OF MASSACHUSETTS

June 1966

Annual Report

School of Engineering

University of Massachusetts, Amherst

1 July 1965 - 30 June 1966

15 June 1966

1. Appropriations

		1963-64	1964-65	1965-66
01	Salaries, Permanent	$ 557,135	$ 665,622	$ 775,343
02	Salaries, Temporary	16,897	30,017	58,669
03	Salaries, Non-employees	14,700	26,100	22,800
04	Food for Persons	100	100	100
10	Travel	3,300	4,550	7,250
11	Adv. & Printing	260	250	250
12	Repairs	8,400	8,400	8,400
13	Supplies	17,750	22,500	20,500
14	Office Expenses	2,000	2,000	2,700
14-1	Telephone	2,200	4,400	4,400
15	Equipment	27,000	32,000	35,000
16	Rentals	880	1,500	4,200

2. Personnel

The table indicates number in each rank as of September (full time equivalents).

	1963	1964	1965
Deans	1	2	2
Department Heads & Chairmen	4	4	5
Professors	12	11.5	15
Associate Professors	16	18.5	18
Assistant Professors	14	15	17
Instructors	0	3	2
Teaching Assistants	15	22	33
Lecturers	2	1	1

3. Organization Chart as of September 1965

Please refer to the next page.

4. Students served.

a. Number of majors as of September 1965

		1963	1964	1965
Chemical Engr.	Sr.	26	19	18
	Jr.	26	20	25
	Soph.	12	24	35

SCHOOL OF ENGINEERING
University of Massachusetts

September 7, 1965

DEAN
E. E. Lindsey (Acting)
Secy. D. E. Brownell

ASSISTANT DEANS

J. S. Marcus (1/2)
Administration
Upper Division
Transfer Students

Secy. M. E. Morrier
Secy. L. J. Reid
Secy. N. J. Clydesdale (1/4)
Secy. N. A. Matysiewicz (1/2)

Mr. S. Rogers

E. J. Rising (1/2)
Basic Engineering
High School Relations

BASIC ENGRG. GROUP
(2) G. P. Weidmann
(3) C. R. Bissey
(3) K. Kroner
(4) F. G. Umholtz
(4) C. E. LaPier

INDUSTRIAL ENGRG. GROUP
(2) R. W. Trueswell, Chmn.
(2) E. J. Rising (1/4)
(3) F. C. Kaminsky
(4) R. N. Millen

Secy. M. A. Stokarski

INDUSTRIAL LIAISON
Director H. D. Segool

CHEMICAL ENGR. DEPT.

(1) J. W. Eldridge, Hd.
(1) K. D. Cashin
(1) J. S. Marcus (1/4)
(2) H. C. Duus
(2) L. H. S. Roblee, Jr.
(3) T. J. McAvoy
(3) R. J. Novak
Lec. D. Chappelear

Secy. S. M. Moore

Mr. R. L. Glazier
Mr. J. T. Gurski

LIBRARY

Mrs. M. A. Kiley

CIVIL ENGR. DEPT.

(0) M. P. White, Hd.
(1) C. E. Carver
(1) T. H. Feng
(1) K. N. Hendrickson
(1) J. S. Marcus (1/4)
(1) E. C. Osgood
(2) W. W. Boyer
(2) F. J. Dzialo
(2) T. A. Grow
(2) G. R. Higgins
(2) F. D. Stockton
(3) J. M. Anderson
(3) S. M. Bomben
(3) D. B. Harris
(3) M. M. Miller
(3) C. V. Smith, Jr.
(3) A. Chajes

Secy. P. J. Litskoski
Mrs. Irene Clarke (WR)

Notes:
(0) = ComWith. Prof.
(1) = Professor
(2) = Associate Prof.
(3) = Assistant Prof.
(4) = Instructor
* = On Leave, Fall '65

ELECTRICAL ENGR. DEPT.

(1) G. D. Sheckels, Hd.
(1) J. W. Langford
(1) C. S. Roys
(2) G. W. Bett
(2) F. H. Edwards *
(2) J. A. Fitzgerald
(2) C. E. Hutchinson
(2) J. E. Laestadius
(2) J. W. Mohn
(2) R. V. Monopoli
(3) H. A. Herchenreder
(3) B. W. Lovell
(3) D. E. Scott
Vis. P.S. T. Maunder (1/2)

Secy. J. A. Tudryn
Secy. C. E. Bristol (1/2)

Mr. W. F. Cook
Mr. F. G. Duda
Mr. D. Stratford

Buildings & Grounds:
L. Blizinak
F. H. Jones, GL
R. Yurkiewicz, EB

MECHANICAL ENGR. DE

(0) C. A. Keyser, Act. H.
(1) M. E. Bates
(1) J. H. Dittfach
(1) J. D. Swenson
(2) R. W. Day
(2) J. M. O'Byrne
(2) R. K. Patterson
(2) D. Sobala
(2) A. J. Costa
(M. E. Shops)
(3) D. E. Cromack
(4) J. Fillo
(4) J. D. Ritter

Secy. E. Ropelewski

Mr. L. W. Rauch
Mr. W. P. Gurski
Mr. A. T. Lozoski
Mr. I. J. Paulin
Mr. K. E. Williams
Mr. F. J. Wojtkiewicz
Mr. J. L Terrell
Mr. J. R. Toczydlowski
Mr. A. Kudrikow
Mr. B. M. Wood

Basic	Chemical	Civil	Electrical	Industrial	Mechanical
		GRADUATE ASSISTANTS -- TEACHING			
	J. V. Curcio I. A. Feuerstein E. N. Hsu D. F. Lieb F. M. Smola J. P. Spinetti J. A. Paraskos (1/2)	P. X. Bellini P. A. Leach R. L. Sabourin I. S. Varga H. Wang J. A. Wesolecki	R. A. Leuchs W. D. Thayer J. A. Lazar R. J. Moreau S. W. Ireland J. A. Fitzgerald C. R. Gitlitz F. L. Bonglovanni G. A. Mohl R. W. Calcosola	A. T. Mason R. Deacon R. Wentworth D. Penos	A.M. Karchmer L.J. Keough H. Keramaty R.G. Miller L.M. Milo E.F. Bowler
		GRADUATE TRAINEES AND FELLOWS			
	J. P. Horin (NDEA) T. P. Fidelle (NDEA) J. G. Miserlis (NDEA) R. H. Sloul (NSF) V.T Turitto (NSF)	A. F. Adamczyk (NIH) H. C. Hyde, Jr. (NIH) A. Marcus (NSF) R. Ratay (NSF)		W. A. Bader (NSF)	
		RESEARCH ASSISTANTS			
	J. B. Dolloff (ONR)	J. A. Krusz (NIH)		P. Fang (NSF)	
		UNIVERSITY FELLOWS			
	V. C. Murphy J. A. Paraskos (1/2)	M. A. Qayyum			C. L. Innis

			1963	1964	1965
Civil Engr.	Sr.		24	39	42
	Jr.		48	57	57
	Soph.		16	49	40
Electrical	Sr.		38	53	43
	Jr.		63	49	60
	Soph.		34	84	56
Industrial	Sr.		10	17	10
	Jr.		20	19	20
	Soph.		3	17	17
Mechanical	Sr.		44	41	37
	Jr.		62	53	60
	Soph.		9	56	51
Undesignated	Jr.		--	--	12
Engineering	Soph.		137	--	36
	Fresh.		277	303	275
Total Undergrads.			849	900	894
Graduate Students			72	107	125
Pittsfield Undergrads.			20	12	0
Pittsfield Graduates			0	0	0
b. Students taught (graduate and undergraduate)			2295	3142	2430
c. Number of Degrees Granted		B.S.	125	150	120
		M.S.	19	14	35

5. Faculty Publications, Research Grants, Research Projects, and other Professional Activities

a. Publications

Civil Engineering

1. Feng, T. H. (C. E. Dept.) "Behavior of Organic Chloramines in Disinfection" Jour. of Water Pollution Control Federation 38, 4, 614-28 (April 1966)

2. Carver, C. E. "Measurement of Laminar Velocity Profiles with Non-Newtonian Additives using Photomicroscopy" Engineering Research Institute, Univ. of Mass., Fluid Mechanics Laboratory Technical Report No.1, Sept. 1965.

3. Carver, C. E., (with 3 co-authors). "Fluid Flow Relations in Circulation Cleaning", Jour. of Milk and Food Technology, 28, No. 12, 377-378 (Dec. 1965).

4. Bemben, S. and Esrig, M. I. Formal discussion: "The Influence of Strain Behavior Upon the Shear Strength of a Soil". Proc. Sixth Intl. Conf. on Soil Mechanics and Foundation Engineering, Montreal Volume 3 (in press).

5. Hendrickson, K. N. "A Geophysical Approach to the Design of a Large Optical Test Stand". Proc. Univ. of Mass. Conference on Economic Geology (Jan. 1966).

6. Anderson, J. M. "Analytic Aerotriangulation: Triplets and Sub-Blocks" with 2 co-authors, Photogrammetria 1966.

7. Chajes, A. and G. Winter, "Torsional - Flexural Buckling of Thin-Walled Members" Jour. of the Structural Division, Proc. of A.S.C.E., August, 1965.

8. Boyer, W. W. and Santoro, L. "COGO36: Engineering Users Manual". Engineering Research Institute, Univ. of Mass.1965.

Electrical Engineering Department

1. Monopoli, R. V. & Lindorf, D. P. - "Control of Time Variable Nonlinear Multivariable Systems Using Liapunov's Direct Method". - NASA Contract Report CR-407, March, 1966.

2. Monopoli, R. V. & Grayson, L. A. - Discussion on "Two Theorems on the Second Method." page 140-141, IEEE Transactions on Automatic Control, January, 1966.

3. Hutchinson, C. E. & Bona, B. E. - An Optimum Stellar-Inertial Navigation System - Journal of Institute of Navigation, Volume 12, No. 2, Summer, 1965

4. Hutchinson, C. E. & Bona, B. E. - Optimum Reset of an Inertial Navigator from Satellite Observations, Proc. of NEC, Volume 21, October, 1965.

5. Hutchinson, C. E. - An Example of the Equivalence of the Kalman and Weiner Filters.IEEE Transactions on Automatic Control, April, 1966.

Industrial Engineering Department

Several papers were presented during the year. These and other manuscripts from I.E. are in the process of publication and should be included in next year's report.

Mechanical Engineering Department

1. Keyser, C. A., Four articles in Encyclopedia Americana: Alloys, Amalgam, Annealing, Anodizing.

b. Research Grants

Chemical Engineering

Proposal 66.2: E. E. Lindsey and D. C. Chappelear - $25,300 from NSF (GK-1110) for research on "Deformation and non-Newtonian Behavior in Suspensions". Two years.

Proposal 66.4: L. H. S. Roblee, Jr. $26,733 from ONR (Nonr 335.7 (02) for research on "Dropwise Condensation". (Renewal). 2 years beginning July 1966. Renewal.

Civil Engineering

Proposal 66.8: T. H. Feng, et.al.: Graduate Training Program (Renewal of ITI-WP-77-01) "Water Quality and Quantity." Federal Water Pollution Control Administration, $23,190 for 12 mos. beginning 1 July 1966. Plus supplementary grant $8078.

Proposal 66.12 M. P. White, et. al.: "Nuclear Blast Studies on Aircraft Carriers" $18,574.80 from David Taylor Model Basin, U.S. Navy.

Proposal 66.18 T. H. Feng: "Effects of Chemical Impurities in Water on Disinfection by Halogens". $35,102 from U. S. Army Medical Research and Development Command for the first year of a proposed three-year program.

Electrical Engineering

Proposal 66.9 R. V. Monopoli: "Control System Analysis" $9,300 Research Initiation Grant from NSF for 2 years (GK-817).

Proposal 66.10 C. E. Hutchinson: "Statistical Parameters for Optimum Estimation of System State Variables". $17,900 for 2 years Research Initiation Grant from NSF (GK-810).

DEAN'S NOTE: The NSF Research Initiation Grant Program in Engineering (new faculty $\leq$ 3 years from PhD) was highly competitive. About 1 in 3 proposals were funded. Our School submitted 5 proposals. Two in C. E. were rated close to the funding cut-off. Our E.E. group did well. In all some 20 proposals were submitted in 1965-66 some to more than one agency. Three were submitted jointly with Chemistry as part of a Polymer Science and Engineering Program. One of these, for $600, was granted by the U. M. Research Council for a conference on polymer education.

c. Fellowships and Training Grants Received

Chemical Engineering

2 new NSF Traineeships.
2 new NDEA Graduate Fellowships.
1 new NASA Traineeship.

d. Papers Presented

1. Prof. G. R. Higgins (C.E.) served on a panel with Messrs. Grof, Motts, and Hopkins at the U. of Mass. Conference on Ecomonic Geology 26 January 1966 to discuss Water Resources of Massachusetts.

2. Dr. C. E. Carver
"Photomicroscopic Measurement of Laminar Velocity Profiles with Non-Newtonian Additives", paper presented at Water Resources Conference, A.S.C.E., Symposium on Non-Newtonian Flows in Civil Engineering, May 16-20, 1966, Denver, Colorado.

"A Photomicroscopic Technique for the Measurement of Laminar Velocity Profiles with Non-Newtonian Additives", paper presented at the 5th U.S. National Congress of Applied Mechanics, University of Minnesota, Minneapolis, Minnesota, June 17, 1966.

3. Prof. K. N. Hendrickson
"The present status of Foundation Practice and Design in Western Massachusetts". Presented to the Western Branch of the ASCE, February, 1966.

"Application of Geodetic and Seismic Principles to Fire C Control of Polaris Missile", April, 1966. Reserve Officer Research Co.

4. Dr. C. E. Hutchinson
"Optimum Reset of an Inertial Navigator from Satellite Observations". National Electronics Conference, October 25, 1965, Chicago, Illinois.

"Optimum Use of Reference Information and Inertial Navigation" National Aerospace Electronics Conference, May 17, 1966, Dayton, Ohio.

5. Prof. R. V. Monopoli
"Estimation of States with Unknown Parameter Variations" IEEE Region 6 Annual Conference, April 28, 1966, Tucson, Arizona.

6. Dr. R. W. Trueswell
"Determining the Optimal Number of Volumes for a Library's Core Collection", Libri (Danish journal in library science). Accepted (January, 1966) for publication.

"A Study of the Information Searching Behavior of X-Ray Crystallographers", paper presented at the Institute for Management Sciences 1966 American Meeting, Dallas, Texas. February 16-19, 1966.

7. Dr. E. J. Rising and Prof. R. N. Millen
"Work Sampling in a Hospital Rehabilitation Unit", presented at the Hospital Research Branch Symposium of the National AIIE Meeting in May, 1966.

8. Prof. R. N. Millen
"An Elementary Hospital Admissions Simulator", presented at the Hospital Research Branch Symposium of the National AIIE Meeting in May, 1966.

e. Special Grants

The Chemical Engineering Department received a total of $4,500 in unrestricted grants: $2,500 from Hercules Powder Co., $1,000 from Monsanto Co., $1,000 from Gulf Oil Corp. Foundation.

The School of Engineering received $2,000 in unrestricted grants: $1,000 from the R. C. Gunness Foundation and a matching grant of $1,000 from the Standard Oil (Indiana) Foundation.

f. Continuing Education

Two more groups (25 men each) of Monsanto Co. scientists and engineers were given the Advanced Engineering Mathematics course by Professors Roblee and Novak under the continuing professional education program begun two years ago.

Profs. Higgins and Patterson organized a successful Computer Orientation Program sponsored by local chapters of Am. Society of Civil Engineers and Am. Society of Mechanical Engineers.

6. Major Accomplishments of the School

a. Industrial Liaison

The period began as we ended our search for a Director of Industrial Liaison. Dr. Howard D. Segool was appointed to this post early in the fiscal year and began his duties in September, 1965. He set up an office in the Engineering Building which after a few months became known as Commonwealth Technical Resource Service or COMTECH. It provides the technological service link between the University and industry.

On September 14, 1965 The State Technical Services Act became law (P.L. 89-182). One of the sponsors of the Act was Representative Conte of this district. He was encouraged by Dean Lindsey and Prof. Maunder, who was invited to be present at the White House for its signing. Its purpose is to develop wider diffusion and more effective application of science and technology in business, commerce, and industry as essentials for growth of the economy, higher levels of employment, and improved competitive position of United States products in world markets.

Under assignment by the Governor's Office to the University, COMTECH is now concentrating on the development of the Commonwealth Five-Year Plan and First Annual Technical Services Program authorized under Public Law 89-182, the State Technical Services Act of 1965, and funded by the U.S. Department of Commerce. This is considered to be an excellent base from which to develop

the desired interrelations, and from which to demonstrate statewide leadership in the area of technical service to industry.

COMTECH is developing a corollary interface for the University with governmental agencies, sister educational institutions, and professional, trade, and regional organizations similarly engaged in efforts which will lead to improved or new technologically-based industries.

Internally, COMTECH coordinates not only with the engineering facility, but with the range of scientific, technological, and business resources of the University which correlate with the operations of business, commerce and industry.

The initial Federal Appropriation is for planning by the designated agency, which in this state is the Governor's office. Some of the funds have gone for regional planning on a five-state basis (Maine, Mass., N. H., Vt., R. I.). As agent for the Governor, COMTECH has engaged some assistants and looks to start work on a state plan beginning about 1 July 1966 after some delay in receiving funds.

b. Graduate Programs

As of this date two new PhD programs have been cleared by the Faculty and the Administration and are on their way to the Trustees for consideration. This would bring the number of PhD programs begun since September 1963 to 4.

One program is in Industrial Engineering. Here we have vigorous, aggressive leadership and a small but dynamic and young faculty with a modern outlook. Drs. James and Rikker, two excellent young men, were appointed to begin September 1966. Therefore we are hopeful. If established, it will be the only such program in New England.

The other program is in Polymer Science and Engineering. It is an interdisciplinary program which will be run by a committee which will in many respects function like a department. It is a natural development for the University to undertake. The state has many businesses and plants which are based on polymers. Also we have had for fifteen years in Chemistry a small group in polymers headed by Dr. R. S. Stein which has gained an international reputation. To the present group composed of two polymer physical chemists, Drs. Stein and MacKnight; and an excellent microscopist, Dr. Marion Rhodes, we are adding a polymerization chemical engineer well established in his field, Dr. Robert Lenz, and a chemist who is one of the country's outstanding rheologists, Dr. Roger Porter. It is hoped this program will be the first pillar in a broad program in material science in polymers, metals, ceramics, glass, and possibly wood and fibers and involve chemists, physicists, engineers, and others.

Competition for good graduate students is keen nationally. However, the quality of our new graduate students continues to improve and in some department the quality is exceptionally good. In this we have been helped by increased support from the University in the way of assistantships and increased outside support.

The Mechanical Engineering Department has revised and updated it's Master's Degree program. In addition to establishing new core requirements, the program offers specialization in aerospace engineering, applied mechanics, heat transfer, machine design, and materials science. New courses are planned to support the new areas of specialization. Graduate enrollment increased significantly in

this department this year.

The appointment of Dr. John R. Dixon from Swarthmore College to head the Mechanical Engineering Department next year is the culmination of a thorough but satisfactory search for outstanding leadership. Dixon is a specialist in thermodynamics, heat transfer, and design. He is also editor of "Engineering Reviews" for McGraw-Hill and is author of two recent books.

c. New Facilities

The Engineering Building East (EBE) was occupied last summer. It was dedicated 14 May 1966. It provides much critically needed laboratory space, office space, classrooms, and importantly, an auditorium for lectures.

Space has been remodelled in Goessmann and in Gunness to provide additional small laboratories in Chemical Engineering badly needed for research.

A new $52,000 analog simulation facility has been set up in Goessmann, financed about 50% by an NSF equipment grant to Profs. McAvoy and Novak and 50% by University equipment funds.

A new 4000 sq. ft. sanitary engineering laboratory has been set up in EBE. Major new items of equipment are: a gas chromatograph, a U-V spectrophotometer, a differential respirometer, millipore filters.

Other new major apparatus now operating in EBE includes a tensile testing machine capable of operating at high temperature, a subsonic wind tunnel, and a multi-speed controlled strain triaxial soils testing machine.

d. Recognition

Prof. Marcus won the 1965 Metawampe Award for distinguished service to students and was the Opening Convocation speaker. Prof. Dittfach won the Outstanding Teacher award in 1965.

Prof. John Mitchell won the 1966 Metawampe Award. Though he is strictly a member of the English faculty, he advises the student Engineering Journal, teaches technical writing to engineers, and has an office in E.B. so we have some claim to him.

The Student Chapter of ASME received recognition for excellence this year.

The Student Chapter of ASCE received a commendation and was judged outstanding in New England for the sixth straight year.

Prof. C. E. Carver is (1) President, Univ. of Mass. Chapter of Phi Beta Kappa and (2) President-elect, Univ. of Mass. Chapter of Sigma Xi.

e. Faculty

Our recruiting has been very successful this year. We look very attractive to many potential faculty, so much so that we have been able to be very selective in our appointments. We were given five new positions and a sixth was allotted

to I. E. to meet a special need. Five have been filled and we expect an offer to go out to a sixth shortly which we believe will be accepted.

We have appointed two outstanding men as Dean and as M. E. Department Head, respectively. Both are to begin July 1.

On the other hand we have had two resignations late in the year. One is in the very critical area of sanitary engineering. Prof. F. H. Edwards was on sabbatical leave September 1965 to June 1966, studying with Dr. M. V. Wilkes at University Mathematical Laboratory of Cambridge University.

7. Special projects or programs.

Most of these have been covered elsewhere.

A training program in sanitary engineering was begun in September 1965 supported by a grant from PHS.

The Freshman Orientation program was operated for the fourth year. This two-week session before the opening of full term serves a useful purpose in motivating and directing freshmen and in reducing attrition.

Future Plans and Needs

Any firm assessment of plans and needs should await the arrival of the new Dean of Engineering, Dr. K. G. Picha, who can give us new perspectives as well as dynamic leadership. However some needs I judge to be particularly critical I feel I should list.

1. Additional graduate-level faculty in Mechanical Engineering.
2. Additional graduate-level faculty in Electrical Engineering.
3. A new building for chemical and nuclear engineering. This may need to include additional space for polymer engineering.
4. An organization and funds to support continuing education for employed engineers, as mentioned in the last report.
5. Some highly skilled and qualified technicians.
6. "Seed money" for research and specialized research equipment.

This is my last report. During my brief tenure I feel we have not stood still but have made some significant progress.

1. PhD programs were begun in Civil and Chemical Engineering and two other new ones are in process.
2. The freshmen program has been reorganized.
3. Industrial engineering has been set up as an independent program and materially strengthened.
4. A new building (EBE) has been completed and occupied.
5. Graduate enrollment has more than doubled.

Most of this is due to action of progressive departments and their heads, their fine cooperation and to the support of the administration.

Respectfully submitted,
E. E. Lindsey

A N N U A L R E P O R T

School of Home Economics
University of Massachusetts

July 1, 1965-June 30, 1966.

Submitted by: Marion A. Niederpruem

Marion A. Niederpruem, Dean

Date: 6/23/66

I. APPROPRIATIONS

1963-64	$18,720.76
1964-65	31,867.15
1965-66	27,635.00

II. PERSONNEL

a.

RANK	Sept. 1963	Sept. 1964	Sept. 1965
Professors (including School Head)	1	2	2
Extension Professors	1	1 (12% time)	1 (50%)
Associate Professors	5 (1 80% time)	6	6
Extension Asso. Prof.	2 (10% time)	2 (12% time)	2 (10% time)
Assistant Professors	4	5(1 25%) (1 75%) (3 100%) (1 100% res.)	6 (1 25%)
Extension Asst. Prof.	1 (10% time)	1 (12% time)	-
Instructors	3	3	2
Visiting Lecturers	-	2(Parttime)	3 (Parttime)
TOTALS	17	22	22

N.B. The Extension faculty for 1965-66 taught courses in the percentages so noted.

b. FACULTY ON LEAVE - None

c. PROMOTIONS AND MERIT INCREASES

Promotions	Rank	Effective Date
Dr. Mary E. Lojkin	Assoc. Prof. "A"	1/31/66

Merit Increases

Ralphaella Banks	1/31/66
Gladys M. Cook	"
Dr. Mary E. Lojkin	"
Jane F. McCullough	"
Dr. Elwood F. Reber	"
Marjorie F. Sullivan	"
Helen R. Vaznaian	"

d. RESIGNATIONS

Ralphaella Banks

Lillian A. Geraci

e. RETIREMENTS - None.

f. NON-PROFESSIONAL PERSONNEL

	Grade No.	Sept. 1963	Sept. 1964	Sept. 1965
Secretaries				
Title:				
Principal Clerk	09	1	1	1
Senior Clk. & Steno.	07	1	1	1
Junior Clk. & Typist	02	1	1	1
Lab Asst., Others:				
Laboratory Assistant	04	1	1	2
Nursery Asst. (R.N.)	03	1	1	1
Housekeeper	03	1	1	-

h. SUPPLEMENTARY INFORMATION

Current Salary Breakdown - Professional Staff - See (A)

Current Salary Breakdown - Technical & Secretarial Staff - See (B)

Organizational Pattern of School - See (C)

Organizational Chart - See (D)

SCHOOL OF HOME ECONOMICS

Salary Breakdown

Professional Staff
January 31, 1966

	Annual Salary	Source
Dean, School of Home Economics		
Marion A. Niederpruem	$18,499.52	01
Professor		
Verda M. Dale (50% of $13,686.40)	6,843.20	01
Elwood F. Reber	16,905.20	01
Associate Professor "A"		
Virginia Davis (1/12 of $11,299.60)	941.63	01
Mary E. Lojkin	10,826.40	01
Marjorie M. Merchant (1/12 of $11,299.60)	941.63	01
Elizabeth M. Rust	12,719.20	01
Helen R. Vaznaian	13,858.00	01
Associate Professor		
Gladys M. Cook	11,772.80	01
Dorothy Davis	10,826.40	01
Sarah L. Hawes	10,826.40	01
Assistant Professor		
Susanna Arnold (1/4 time; $9939.80)	2,484.95	01
A. Raymond Cellura	12,027.60	01
Lillian A. Geraci	11,143.60	01
Jane F. McCullough	10,540.40	01
Marjorie F. Sullivan	10,699.00	01
Instructor		
Ralphaella Banks	8,681.40	01
Joan Coughlin (1/2 time)	4,005.30	01
Visiting Lecturers (part time)		
Marilyn Aninger	2,670.00	03
Judith Keldsen	2,015.00	03
Anna Russell	2,015.00	03

Salary Distribution

[illegible]

Technical Staff

	Grade	Annual Salary	Source
Laboratory Assistants			
Helen Morrissey	04	$4,347.20	02
Arline Stoughton	04	4,061.20	02
Housekeeper			
Emergency Person (1/12 of $3317.60, base)	03	276.22	02
Nursery Assistant			
Ruth G. Smith	03	3,597.44	01

Secretarial Staff

Principal Clerk			
Dorothy E. Menard	09	5,735.60	01
Senior Clerk-Steno.			
Phyllis Handrich	07	4,803.00	01
Junior Clerk-Typist			
Patricia Bysiewski	02	3,460.20	01
TOTAL		$207,473.49	

Total Personnel Services

01	$ 192,088.87
02	8,684.62
03	6,700.00
	$ 207,473.49

1/31/66:m

SCHOOL OF HOME ECONOMICS
UNIVERSITY OF MASSACHUSETTS

ORGANIZATIONAL PATTERN FOR SCHOOL

TEACHING-RESEARCH-EXTENSION

FOOD AND NUTRITION

Chairman - Dr. E. Reber
Dr. M. Bert
G. Cook
D. Davis
Dr. M. Lojkin
J. McCullough
M. Merchant
Dr. E. Rust
H. Wright

TEXTILES, CLOTHING AND ENVIRONMENTAL ART

Acting Chairman - Dr. M. Niederpruem
S. Arnold
J. Coughlin
L. Geraci
V. Davis
S. Hawes
R. Johnston

MANAGEMENT AND FAMILY ECONOMICS

Chairman - V. Dale
B. Higgins
E. Knapp

HUMAN DEVELOPMENT

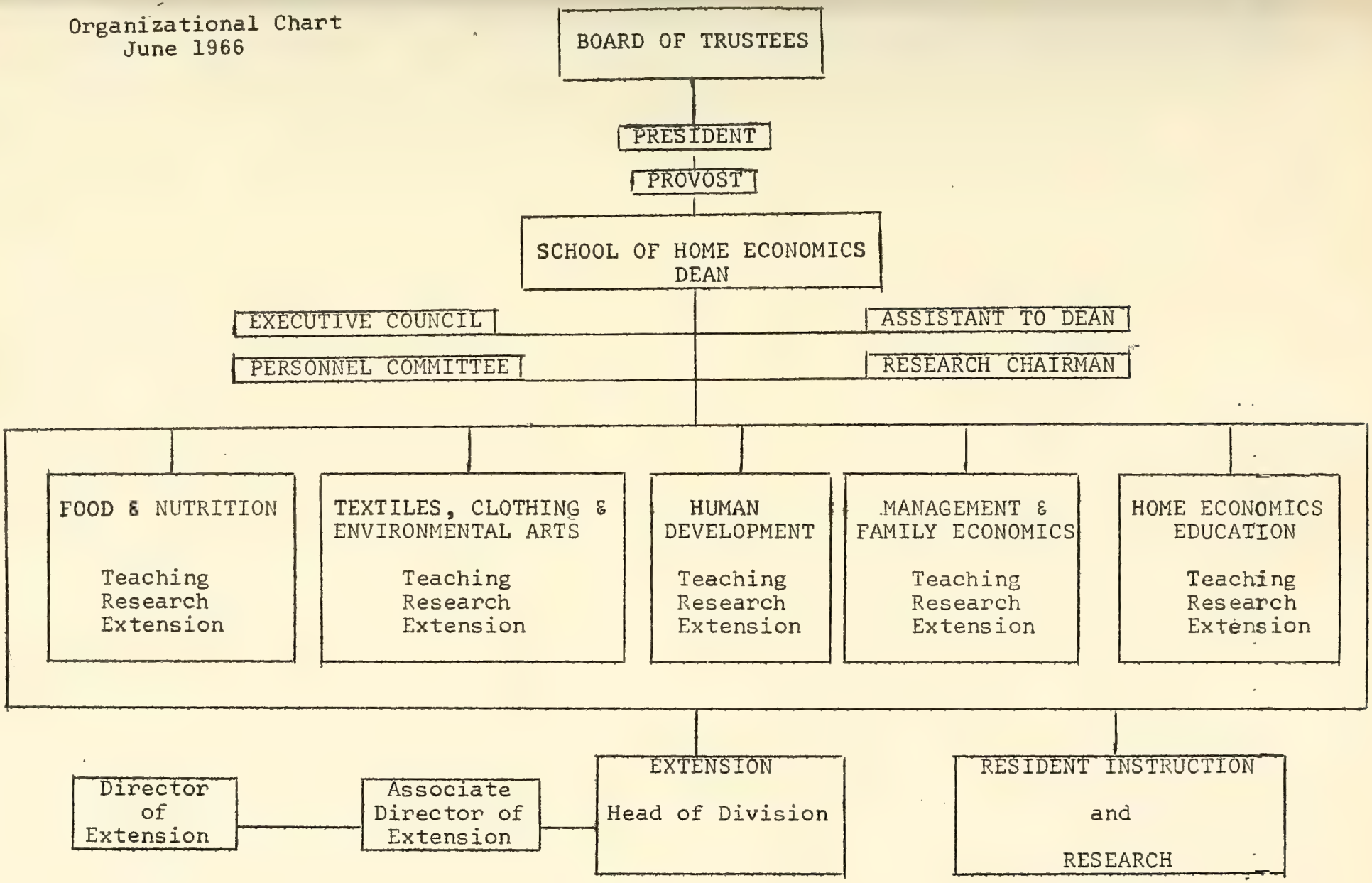
Chairman - Dr. A. Raymond Cellura
M. Aninger
R. Banks
J. Burroughs
J. Keldsen
A. Russell
R. Smith

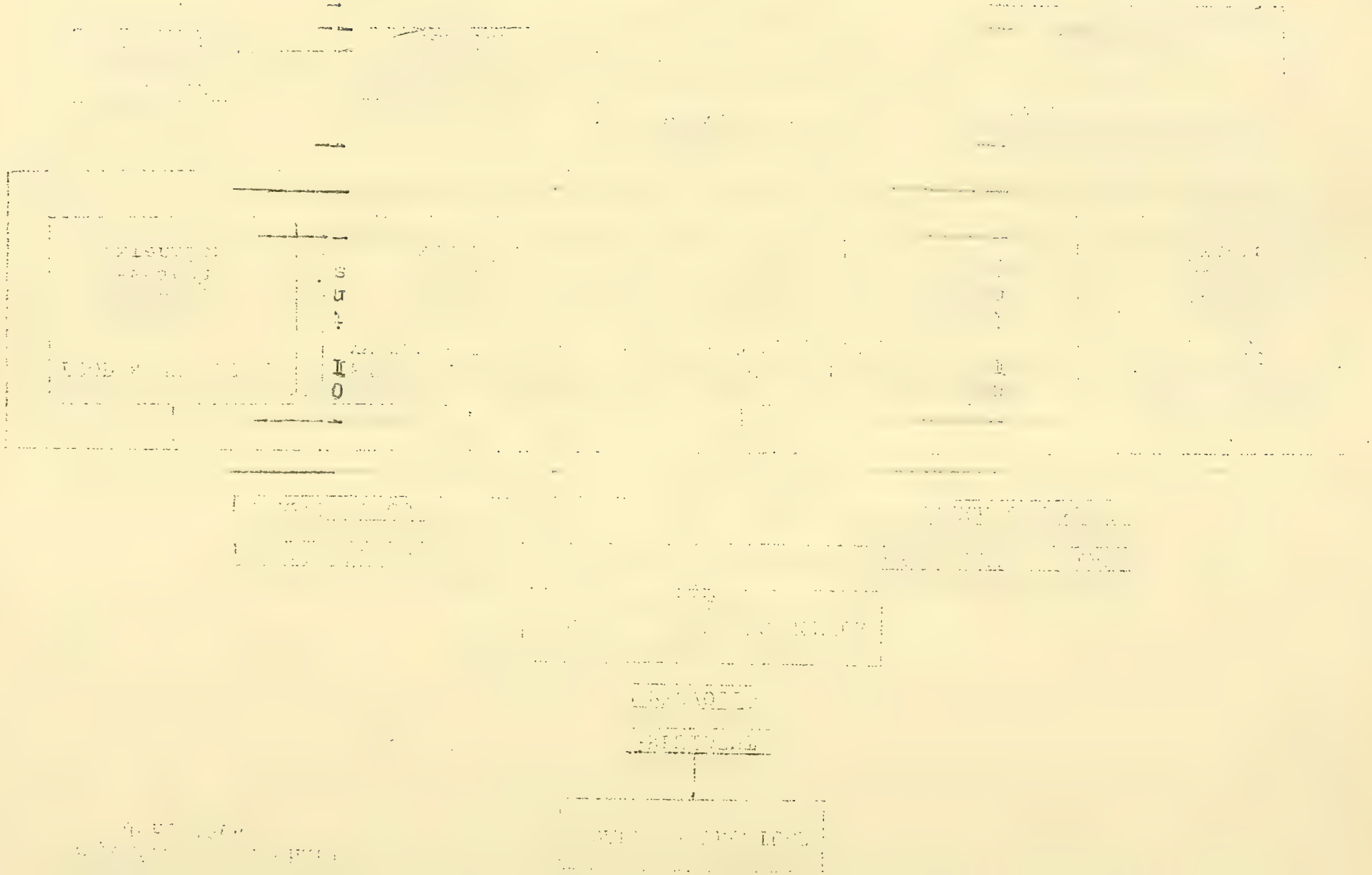
HOME ECONOMICS EDUCATION

Chairman - H. Vaznaian
W. Eastwood
M. Sullivan

6/66:m

Organizational Chart
June 1966





IV. STUDENTS

	Sept. 1963	Sept. 1964	Sept. 1965
a. Number of majors, undergrad.	177	213	289
Number of majors, graduate	6	7	17

	1963		1964		1965	
	1st	2nd	1st	2nd	1st	2nd
b. No. students taught each sem. (undergrad. & graduate)	428	574	559	644	861	783
No. of non-majors	130	223	118	252	246	266
No. of courses offered	26	21	26	27	29	25

c. Current data on enrollment figures - See (E)

SCHOOL OF HOME ECONOMICS UNDERGRADUATE ENROLLMENT

FALL 1961 -- FALL 1965

Fall Semester 1961-62		
Freshman		- 26
Sophomore		- 34
Junior		- 26
Senior		- 30
	Total	116
Fall Semester 1962-63		
Freshman		- 37
Sophomore		- 32
Junior		- 40
Senior		- 28
	Total	137
Fall Semester 1963-64		
Freshman		- 62
Sophomore		- 44
Junior		- 35
Senior		- 36
	Total	177
Fall Semester 1964-65		
Freshman		- 74
Sophomore		- 63
Junior		- 40
Senior		- 33
Special Students		- 3
	Total	213
Fall Semester 1965-66		
Freshman		-101
Sophomore		- 94
Junior		- 53
Senior		- 36
Non-Classified		- 5
	Total	289

Percentage of Increase - Fall 1961 to Fall 1965 ---------- 149.1%

6/1/66:h

V. FACULTY PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITIES.

FACULTY PUBLICATIONS

Bert, M.H., F. Fu, and E. F. Reber. Biological evaluation of protein quality of radiation sub-sterilized shrimp. Fed. Proc. 25, 2751, 1966.

Davis, D. Book review of Marion Jacobson, Food Principles, An Introduction to Experimental Study of Foods and Food Preparation. Pullman, Washington: Washington State University, 221 pp. J. Home Econ. 58, 65, 1966.

Lojkin, Mary E. Effect of nitrogen intake on tryptophan metabolism and requirement for pregnancy. Fed. Proc. 24, 569, 1965.

Stanley, D. W., M.E. Lojkin. Tryptophan metabolism and requirement for pregnancy. Fed. Proc. 25, 675, 1966.

Niederpruem, Marion A. Foreward for book, The Theory of Fashion Design by Helen Brockman: John Wiley & Sons, Inc., N.Y. 1965.

Niederpruem, Marion A. Man and Clothing. Focus, 1966. (Article).

Raheja, K. L., and E. F. Reber. The effects of testosterone and dicumarol on blood coagulation in rats. Fed. Proc. 25, 2429, 1966.

Reber, E.F., K. Raheja, and D. Davis. Wholesomeness of Irradiated Foods. An Annotated Bibliography. pp 749-819. Radiation Processing of Foods. Hearings before the Subcommittee on Research, Development and Radiation of the Joint Committee on Atomic Energy. Congress of the United States. Eighty-ninth Congress. 1965.

RESEARCH GRANTS AND PROJECTS

Dr. Mark H. Bert, Faculty Research Grant; $1000.

Title: Enhancement of the nutritive value of unicellular algae.

Dr. A. Raymond Cellura, Office of Economic Opportunity. June 1966; $8,250.

Title: Head Start Orientation Training Program.

Dr. Mary E. Lojkin, National Institute of Health Grant, 1963-64, 1964-65, $7200; extended through Sept. 30, 1967: $12,876.

Title: Tryptophan metabolism and requirement for pregnancy.

RESEARCH GRANTS AND PROJECTS (contd)

Dr. Elwood F. Reber, Faculty Research Grant, 1964-65, $1000; 1965-1966, $500.

Title: Biological evaluation of radiation sub-sterilized clams.

Dr. Elwood F. Reber, Office of the Surgeon General

Title: Compilation of an annotated bibliography on the wholesomeness of irradiation preserved foods.

Dr. Elwood F. Reber, Atomic Energy Commission

Title: Evaluation of the wholesomeness of irradiation pasteurized clams.

Dr. Elizabeth M. Rust, Bureau of Commercial Fisheries, April 1966-March 1967, $4,318.

Title: The influence of radiation, storage time and method of preparation on the palatability of selected marine products.

OTHER PROFESSIONAL ACTIVITIES

The following faculty attended and participated in professional meetings as follows:

Mrs. Susanna B. Arnold - New York Fashion Group - American Spring Fashion Preview; New York City.

Ralphaella Banks - Western Massachusetts Association for the Education of Young Children, Mt. Holyoke College, So. Hadley. (President).

Western Massachusetts Association for Education of Young Children, Smith College, Northampton.

National Head Start Meeting for Universities and Colleges Planning Teacher-Training Sessions, St. Louis, Mo.

New England Association for the Education of Young Children, Rhode Island College, Providence. (Member-at-large of Executive Board).

OTHER PROFESSIONAL ACTIVITIES (contd)

Ralphaella Banks - Class on "Guiding the Pre-School Child" for the conference on The Home and Family. Sponsored by the Massachusetts Cooperative Service.

Dr. Mark H. Bert - The 13th Annual Food Management Seminar (National) University of Massachusetts, Amherst.

National meeting of the Federation of American Societies for Experimental Biology, Atlantic City, N.J.; presented nutrition research paper.

Dr. A. Raymond Cellura - Northeastern Psychological Association Meeting, Boston.

American Educational Research Association Meeting, Chicago.

National Head Start Meeting for Universities and Colleges Planning Teacher-training Sessions; St. Louis, Mo.

Mrs. Gladys M. Cook - Food and Drug Administration Conference, Boston.

American Dietetic Association Annual Meeting, Cleveland, Ohio.

Western Massachusetts Dietetic Association Meeting, Amherst.

Western Massachusetts Home Economics Association Meeting, Gosh

Dorothy Davis - Lecture-demonstration meeting for home economists, Berkshire Gas Co., Deerfield.

Workshop - "Working with Low-Income Families" - Framingham.

Food Forum, New York City.

Lillian A. Geraci - National Retail Merchants Association Annual Convention, New York City.

Dr. Mary E. Lojkin - IVth International Congress of Dietetics, Stockholm, Sweden.

Federation of American Societies for Experimental Biology, Atlantic City, N. J. (presented paper).

OTHER PROFESSIONAL ACTIVITIES (contd).

Jane F. McCullough - Food Service Executives Association National Meeting, New York City.

Massachusetts Food Service Executives Association, as first vice-president (October); April, as acting president; elected president, April.

Northeastern Section of International Food Technologists Meeting, University of Massachusetts, Amherst.

National Meeting of Society for Advancement of Food Service Research, Cornell U., Ithaca, N. Y.

Massachusetts Food Service Education Council (six meetings), and planning committee for 13th Annual Mass. Food Service Seminar, Jan. 1966; planning committee for 14th Annual Mass. Food Service Seminar, 1967.

13th Annual Massachusetts Food Service Seminar, University of Massachusetts, Amherst.

Eastern Territories Conference of Food Service Executives Association, Rhode Island.

Dean Marion A. Niederpruem - Annual Meeting of the Association of Land-Grant Colleges and Universities, Minneapolis, Minn.

Northeastern Home Economics Administrators Annual Meeting, New York City.

American Home Economics Association Annual Conference, San Francisco.

Dr. Elwood F. Reber - 36th Annual Meeting of the New York Dietetic Association, Syracuse, N.Y. (presented paper).

Federation of American Societies for Experimental Biology, Atlantic City, N. J. (2 papers presented).

25th Annual Meeting of Institute of Food Technologists, Kansas City.

Northeastern Regional Meetings on Cooperative Nutrition Programs, College Park, Md.

OTHER PROFESSIONAL ACTIVITIES (contd)

Dr. Elizabeth Rust - Northeast Section Institute of Food Technologists, (2 meetings - 1 Amherst; 1 Boston).

Massachusetts Dietetic Association, (2 meetings), Boston.

Food Service Executives Association Meetings, (three), Northampton, Granby, Worcester.

Sigma Xi Meeting, Amherst.

Marjorie F. Sullivan - Workshop "Working with Low-Income Families" - Framingham, Mass.

College Chapter American Home Economics Association Meeting, Regis College, Weston.

New England District Association of Student Teaching Annual Conference and Meeting, Lexington.

American Home Economics Association College Chapter Advisers Workshop, Michigan State U., East Lansing.

Association for Supervision and Curriculum Development Dialectic Conference, Storrs.

Regional Meeting, FHA, Amherst.

Pitkin Conference, New England ASCD Conference, Educational Policies Commission, Keene, N.H.

Meeting for Home Economists, Berkshire Gas Co., Deerfield.

Massachusetts Home Economics Association State Meeting, Westfield.

Western Mass. Home Economics Association Meeting, Goshen.

Ford Foundation Project, Curriculum Workshop, Bennington, Vt.

Helen R. Vaznaian - New England ASCD Victor Pitkin Institute, Planning Committee, Keene, N.H.

Second Dialogic Conference on Factors Which Inhibit or Facilitate Change in Institutionalized Arrangements (Consultant), Storrs. (New England Education Policies Commission of ASCD).

Massachusetts Home Economics Association, Westfield College, Westfield (key speaker).

OTHER PROFESSIONAL ACTIVITIES (contd)

Executive Board Meeting, New England ASCD, Keene, N.H.

Food Service Industries Meeting, Boston.

Meeting for Home Economists, Berkshire Gas Co., Deerfield.

Cooperative Project for Curriculum Development in Southwestern Vermont (consultant - two day institute), Bennington, Vt. (Ford Foundation).

New England ASCD, The Victor Pitkin Institute, Keene, N.H.

Massachusetts ASCD Mid-Winter and Annual Meeting, Lexington and Needham.

Connecticut ASCD Meeting, Storrs, Conn.

HUMAN DEVELOPMENT

DEPARTMENTAL REPORT 1965-1966 ACADEMIC YEAR.

STATE OF THE DEPARTMENT IN FALL 1965

In the Fall of 1965, a departmental chairman was appointed in the Human Development program. Previously, there had been no full-time chairman. Consequently, there was a very limited opportunity to develop educational programs, plan and provide for needed facilities and appoint new faculty, as well as other administrative activities necessary for a sound departmental program.

DEFINITION OF PROGRAM GOALS

The program in Human Development is concerned with the study of substantive and methodological problems related to the analysis of stability and change of human characteristics over the life cycle. The program is intended to provide an organizational setting in which:

a. social and biological scientists may focus the analytic power of their disciplines upon developmental phenomena;

b. students interested primarily in the study of stability and change of human characteristics over time may acquire the competency required to analyze these phenomena;

c. techniques may be developed that are specially suited to facilitate the study of developmental phenomena;

d. the units of analysis generally associated with a particular discipline may be organized into a unified science of human development.

Curriculum Development. Courses are being developed at the undergraduate level to provide our majors with the theoretical, empirical and philosophical background necessary for work with pre-school aged children. At the graduate level a program leading to the Ph.D. in Human Development is being developed. The program will emphasize theoretical and empirical experience in three areas of human development:

1. psychological development
2. socio-cultural development
3. political-economic development

There are an insufficient number of courses offered in the Human Development program for undergraduate and graduate specialization in this area. In the Fall of 1965 there were only eight courses offered at the undergraduate and graduate level. A request has been initiated to add four courses for the fall of 1966. These are:

a. Language and Cognitive Development (3 cr.)
b. Theories of Human Development (3 cr.)
c. Observational Child Study (3 cr.)
d. Theories of Social Learning (3 cr.)

Each of these courses is to be offered for both undergraduate and graduate credit.

Program Standards. Policies have been defined for acceptance of undergraduate and graduate students in the Human Development program. At the undergraduate level, transfer students may apply to the program if their academic cumulative average is a 2.0 or better and they indicate a definite interest in work with pre-school aged children. At the graduate level admissions are based upon an analysis of performance on the graduate record exam (Math and English, the Miller Analogies test, previous course work, and letters of recommendation). Applicants to the graduate program are required to have maintained a "B" average in their undergraduate work, a score of at least 60 on the Miller Analogies test (approximately the 75th percentile for among graduate students in the social sciences) and math and English scores on the graduate record exam at approximately the 75th percentile for graduate students.

DEPARTMENTALIZATION

With the other areas in the School of Home Economics, a request has been initiated for formal departmentalization. During the academic year, administrative procedures have been established to allow a smooth transition to departmental status should this request be accepted. Admissions criteria, budget procedures, faculty evaluation procedures and procedures for the identification and assessment of candidates for positions in human development have been established.

FACULTY AND STAFF

In the Fall of 1965, the Human Development program consisted of a faculty of three persons (only one had graduate status), one visiting lecturer, three head teachers, and one secretary. Two positions have been assigned to the department for the academic year, 1966-67, and one resignation was submitted. Over 40 applications were received for the positions which were open. Eight candidates were interviewed and two appointments were made:

Dr. Margaret Fernandes, Ph.D., Brigham Young University
Dr. Elis Olim, Ph. D., University of Chicago

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Dr. Margaret Fernandes, Ph.D., Brigham Young University
Dr. Elis Olim, Ph. D., University of Chicago

Both appointees are eligible for graduate faculty status. A third appointment is pending.

One staff resignation has been accepted. One staff appointment as head teacher has been allocated and filled. An appointment for a position opening as a head teacher in the Nursery School is pending.

FACILITIES

Planning was initiated during the 1965-66 academic year for facilities to meet the needs of program growth. The need for expanded facilities has been recognized by the University administration. Consequently, the following facilities will be available to the Human Development program faculty, staff and students:

A. Human Development Laboratory. This new laboratory will occupy Room 4 and the adjoining lavatory in Skinner Hall. This new laboratory will be equipped as a nursery school room with sound proofing and observational facilities which include an observation booth with sound system and one-way mirror. This laboratory provides for:

   1. an increase in our research facilities
   2. the potential for greater flexibility and educational and research programming
   3. a laboratory for the placement of child development majors during their nursery school internship

B. Departmental Office and Laboratory Space (Hampshire House. Arrangements have been made to house the Human Development program faculty and staff in Hampshire House. The assigned area includes nine faculty offices, a secretarial office, a graduate student room, a machine room, a storage room and a testing room. A request is pending for the allocation of a conference room and a curriculum workshop. Space is also available for program expansion in Hampshire House.

RESEARCH AND TRAINING GRANTS

At the request of the Office of Economic Opportunity, a program training grant proposal was developed, submitted and approved. The grant authorizes the Human Development Program to conduct a Head Start Orientation Training Program to initiate the training of head-start teachers prior to their assignment in Child Development Centers throughout Western Massachusetts. O.E.O. has authorized the allocation of $8200 for an 8-day period. In addition, the Human Development faculty has been authorized to act as consultants to Child Development Centers in

various communities throughout Western Massachusetts, under a separately negotiated arrangement. The contract approval by the Treasurer is pending.

A proposal is being initiated in cooperation with officials of the Springfield Area Poverty Program to establish a Child Development Center. This center would serve as a focal point for a human development training program at the undergraduate and graduate level with the culturally disadvantaged. Activities would include research, teaching and community service.

PROGRAM GROWTH

Enrollment. There has been a substantial increase in the undergraduate and graduate enrollments in Human Development. In the Fall of 1965, there were approximately 79 undergraduate majors in Child Development. At the end of the academic year there were 95. It is anticipated that the undergraduate enrollment will approach 120 majors in the Fall of 1966.

Graduate Enrollment. Enrollment at the graduate level has been restricted purposely until staff increases allow the execution of strong programs. There is, however, one graduate student in Human Development and a research assistantship has been allocated to her. She expects to complete her program in August of 1966. Her thesis concerns:

> The Relationships Between Female Adolescent Sex Role Identity, Socio-Economic Status and Parental Orientation. Her thesis committee includes: Drs. A. Raymond Cellura (Human Development) and Harry Schumer (Psychology).

Teaching assistantships in the amount of $2500 have been allocated for the 1966-67 academic year and four applications to the graduate program are now pending.

COMMUNITY PROGRAMS

Staff members have, throughout the year, engaged in various community service programs. Included have been radio and television appearances, workshop presentations, and adult education seminars.

Submitted by
A. Raymond Cellura

MANAGEMENT AND FAMILY ECONOMICS

DEPARTMENTAL REPORT 1965-1966 ACADEMIC YEAR.

I. Faculty publications, research projects, other professional activities.

a. Publications:

Barbara Higgins contributed case studies for The Spender Syndrome, (Brenda Dervin and Jane Ehman, editors), Center for Consumer Affairs, The University of Wisconsin, Milwaukee, Wisconsin.

Edward K. Knapp, Our Housing, Publication 434, Cooperative Extension Service, University of Massachusetts, Amherst, Mass.

b. Professional activities:

Three members of the department -- Marjorie M. Merchant, Edward K. Knapp, and Verda M. Dale -- are engaged in doctorate study. Mr. Knapp has been on leave this year.

Barbara Higgins was one of the faculty for a two-week New England School for Credit Union Managers.

Marjorie Merchant participated in planning two state-wide Consumer Conferences with the Massachusetts Consumer Association, and presented an overall view of consumer education needs and problems at the Massachusetts Consumer Conference in November 1965.

Verda M. Dale was a participant in the Massachusetts Home Economics Association sponsored workshop "Working with Low-Income Families."

II. Major accomplishment of the Management and Family Economics Department during the fiscal year:

a. Work with Low-Income Clientel:

One of the most exciting and challenging projects of the department has been the developing and adapting of management and family economics teaching materials to meet the special educational needs of individuals who are culturally and economically deprived. A major portion of the Exten-

sion Division program has been oriented to this work. Work in this field has included:

1. Serving as a consultant and coordinator for a home management training program for low-income women, under the auspices of the United South End Settlements and the Boston Welfare Department. The training is a part of the manpower training program, and the home management training is pre-vocational in intent. One class of 33 women has been graduated; a second class of 47 women is in progress, and a third class is anticipated. Of the first class that graduated, 15 women have continued some form of educational training -- some in basic education and others in job-oriented training. In addition, 14 women are now undergoing work experience. This leaves only 4 of the original class, because of various personal and family reasons, unassigned. (Verda M. Dale)

2. Serving as resource person or teacher for home management and family economics subject matter for a number of county extension programs and community programs directed toward low-income clientel. (Marjorie M. Merchant, Barbara Higgins, Verda M. Dale)

3. Serving as educational consultants and teachers to professional workers who will be involved with low-income programs. These workers have included personnel from United South End Settlements, Boston Redevelopment Authority, Red Cross and Boston Welfare Department. Training has included special work in family finance (Boston Welfare Department case workers and Barbara Higgins), a three-week home economics orientation program (Boston Redevelopment Authority personnel with Marjorie Merchant as coordinator), and individual conferences and teaching. (Barbara Higgins, Marjorie Merchant, Verda Dale).

___. Special projects:

A new venture for the department has been the beginning of continuing education, non-credit seminars in Consumer Economics. Two five-week seminars have been held -- one at the University of Massachusetts campus in the fall, and the other at the University of Massachusetts/Boston location in the spring. In addition, a 10-week seminar on the same subject was held in Pittsfield. A large majority of the students are professionally allied to some phase of education. The seminars, from evaluation reports by those in attendance, appear to meet the needs of consumers and those working with consumer groups for timely information as to consumer problems and the responsibilities of consumers.

Submitted by:
Verda M. Dale

HOME ECONOMICS EDUCATION

DEPARTMENTAL REPORT 1965-1966 ACADEMIC YEAR

Research Activities

Consultant to Cooperative Project for Curriculum Development, Bennington, Vt. Other cooperating institutions, made possible by a Ford Foundation Grant, are Bennington College, the University of Vermont, Williams College, State University of New York at Albany, the Vermont State Department of Education, and Massachusetts State College at North Adams. Our role in this project is both specific and extensive.

Consultant to Newton Public Schools, Newton, Mass., on their Ford Foundation Project: Revision and Curriculum Development in Occupational Related Areas in Home Economics, Business, Industrial Arts, Technical-Vocational Programs at the Secondary School Level. The project will extend to education for the years 13 and 14; i.e., post high school, junior college and adult education.

It is perhaps timely to report that a portion of our research carried on at the Weeks Junior High School, Newton, Mass., will be presented by two of the teachers directly involved, Miss Sylvia Thompson and Miss Diane Ward, at the American Home Economics Association Meeting in San Francisco, June 28, 1966. The presentation is titled, "An Enrichment Program in Home Economics: A Team Approach to Learning." Permit me to say this is but one small portion of the entire project.

In addition, we are directly involved with the New England Association for Supervision and Curriculum Development Educational Policies Commission Research Project, "Factors Which Facilitate and Inhibit Change in Institutions." Thus far, the research has been carried on at the University of Connecticut. It will extend geographically into each of the remaining New England States.

Finally, we are currently engaged in a dialogue with the Amherst Public Schools. We expect to engage in a research project of mutual concern commencing September 1967.

Other Professional Activities

The department has participated in a number of professional meetings at the state, regional and national levels; frankly too numerous to mention. Of particular importance was, perhaps, the Annual Spring Meeting of the Massachusetts Home Economics Association where Miss Vaznaian

served as key speaker.

Major Accomplishments

1. Complete revision of the Undergraduate Program in Home Economics Education.

   In the new program, credit requirements in general education have been extended from 55 to a minimum of 67, with a possible potential of 73. Of this number, 55 credits are in specified course work; 12-15 in elective course work. Opportunities for a semester of study at the Merrill-Palmer Institute in Detroit, Mich., or for combining Journalism with Home Economics Education, add significant and essential dimension to our program.

2. Reorganization of three courses; namely,

   HEEd. 388, Problems in Home Economics Education
   HEEd. 391, Seminar in Home Economics Education
   Edu. 385, Observation and Student Teaching in Home Economics

3. Initial reassessment of the graduate program in Home Economics Education.

   There can be no doubt that a major undertaking for the current fiscal year, as well as for the next, is and will continue to be the total reorganization of our graduate program in Home Economics Education. This undertaking is currently in the initial stages of critical analysis. It will necessitate the cooperative and collaborative efforts of all department heads if we are to achieve a program of excellence.

Special Projects

1. A pilot program with intent to develop a more meaningful and challenging program in Student Internship was introduced at the John W. Weeks Junior High School, Newton. The pilot program involved several phases: a) Orientation of cooperating teachers; b) Procedural expectations; c) Development of observational/evaluational instruments; d) Supervision redefined; e) Two-hour seminar sessions held weekly with all students currently involved in the internship program. The nature of the results reassure the direction our student internship program will take; i.e., the significance and need of necessary changes.

   In conjunection with our findings, Mrs. Sullivan has been surveying schools in the state of Massachusetts which will more adequately meet our needs.

2. A one-day institute was organized (Ford Foundation) for five cooperating communities in Bennington, Vt. A variety of materials and methods were explored in the development of wage-earning programs applicable to meeting the needs, interests and abilities of the students and communities. The institute was under the direction of Helen Vaznaian.

Submitted by
Helen R. Vaznaian

FOOD AND NUTRITION

DEPARTMENTAL REPORT 1965-1966 ACADEMIC YEAR.

Accomplishments

Dr. Mark H. Bert joined the Food and Nutrition in December 1965. Dr. Bert was appointed to membership on the Graduate Faculty of the University of Massachusetts. Appointed to serve on the Health Council of the University of Massachusetts, by the Faculty Senate Committee on Committees.

A request was made to the Graduate School to divide Food and Nutrition course 704, Advanced Nutrition - Vitamins and Minerals, into two courses. The request was approved. Therefore, in the future, Food and Nutrition will offer course 704, Advanced Nutrition - Vitamins and FN 705, Advanced Nutrition - Minerals.

All members of the Food and Nutrition staff have participated in the preparation of a request to grant the Master's degree and the Ph. D. degree in a graduate department of Nutrition and Food. Discussions and preparation of this application have been taking place during the past two years. The application has been approved by the appropriate University committees and the several administrators concerned with this application.

Submitted by
Elwood F. Reber

HOME ECONOMICS EXTENSION

DEPARTMENTAL REPORT 1965-1966 ACADEMIC YEAR

The emphasis during the year has been to involve adults, professional and lay, in experiences of exploring ideas through study and discussion. Problems which adults and a community of adults face have been the focus of the seminars, workshops, conferences and in-service training sessions. The staff has developed areas for teaching and has answered requests of groups for certain topics.

Lay participants have been from middle income and low income. The low income audience has grown during the year due to the Division's becoming more involved with projects over the state under the Economic Opportunity Act.

The largest group of professionals have been teachers, followed by social and welfare workers. In-service training was provided for the Extension field staff, county Extension Home Economists and 4-H agents.

Major Accomplishments

The Division staff has taught or organized just under 50 different opportunities for citizens to have an in-depth learning experience of from two to ten sessions. The total attendance has been under 2000.

During 1965-66, the Division initiated four on-campus seminars, two at Amherst, and two at Boston. The two different topics were:

	Attendance	
	Amherst	Boston
"American Adolescent in the Mid-Sixties"	67	59
"Consumer and the Economy"	39	75

(The attendance was too large at all sessions to be a true seminar - rather a lecture-discussion series.)

Each seminar met five evenings for two hours. A breakdown of enrollees in the "American Adolescent" included: secondary school teachers, county Extension staff, youth leaders, guidance councillors, doctors, clergy, social workers, dietitians, nurses, religious education leaders, and business men. "Consumer in the Economy" included: secondary school teachers, county Extension staff, graduate students, credit union personnel, editor, civil engineer, secretary, auto service manager, legislature observer, consumer consultant, consumer research personnel, home guidance specialist (poverty program), and cooperative director.

"Whereas I am also a registered nurse I have had previous courses in Psychology but have never enjoyed the subject matter as fully as in this course. Previous courses in Psychology have primarily dealt with the adult and I found this to be very dull. With a good basic understanding of child behavior and complications, as presented in this course, I maintained a high degree of interest. Found this course to be of great value to me at work in understanding the thinking and acting of this age group (students have even remarked to me how much more understanding I am of them since taking this course)."

Paul E. Aldrich
Barber School Instructor

"This has been a very stimulating session for me, and my first exposure to the Consumer Economic Courses. Although I stress consumer buying and money management in my courses, I am convinced that it has been a result of my own experiences. The bibliography and outline of areas will help for self study. More information on the market structure would probably give a clearer understanding of the area."

Mrs. Joan Leach, Teacher

The Division expects to continue offering non-credit professional improvement seminars and workshops on both campuses. Those attending in 1965-66 are requesting more on the same subjects, plus requests for different areas of subject matter.

The Economic Opportunity Act has re-introduced into our society with new emphasis a concept that lay persons can be trained to carry a helping-teaching role. One important role the new program has introduced is the Home Management Aide (a sub-professional). The homemaker is selected from the neighborhood, trained and then given certain families to assist. The Division has trained five professionals to act as Home Management Trainers, and has contributed to the training of 110 Home Management Aides in South End and Roxbury, Boston and in Springfield. The Aides have been selected from the Welfare rolls and at the time of selection were neither working nor attending any type of learning activity. In the first class of 23, graduated in Springfield, six are not on part time or full time employment and are no longer on welfare.

The traditional Extension program for middle income has continued, for which the Division staff trained over 900 leaders to teach an area of subject matter in the 250 homemaker groups in the state. Over 200 adult leaders were trained to teach in the 4-H county programs. Forty-eight telecasts were made by the Division staff over WHDH-TV, Boston, on topics of Consumer Education and Human Relations.

The Division has assisted the twelve county Homemaker Councils to carry out their role as advisory to the county program in Home and Family Life. The Division staff is often requested as a lecturer or speaker, which is considered by the University as public service. The staff gave sixty-two days to this in the past year.

In 1965-1966 a start was made on a long time study by the State Homemakers' Council on State and County Government, with the Division Head as advisor and coordinator of the study, which has included two days of program and two tours to the State House.

A second new program for the Council is a study which is to continue over two years on Latin America. A two-day workshop was held at the University, Amherst in October 1965. A second will be held in the fall of 1966.

The State Commission on Aging and the Extension Division of Home Economics have started a cooperative program of leader training for the senior citizen groups in the state, of which there are several hundred. The training will include both techniques of leadership and subject matter. The first effort was one day of training for the officers of groups in Worcester County.

The Division is a small group of faculty offering a program of adult education to the citizens of the state. The hope of the University is to greatly increase the faculty and facilities for Continuing Education. There is no lack of interest by professionals and lay in "returning to school" for non-credit and credit courses. Beyond this declared interest there are deep needs in the society in which the University should become involved. One vast area of need are the problems of urbanization. A university located in a small town is perhaps not as aware of the problems of complexity and needs for massive resources as one located in a city.

If the urban State of Massachusetts is the campus, then the sooner we are permitted to have more resources for Continuing Education the better.

Submitted by
Winifred I. Eastwood

VI. MAJOR ACCOMPLISHMENTS

Request for Departmentalization

On May 16, 1966, the School of Home Economics presented to the Provost a request for departmentalization. The Executive Council of the School and the faculty worked on this through the entire year. This request is now ready for the next step in the procedural process. Eventually this will go to the Board of Trustees. The request for departmentalization dates back to November 2, 1964. However, preparing the presentation for the request has taken a great deal of time, thought and effort on the part of the School faculty. It is our hope this request can be acted upon during fall 1966 by the Board of Trustees.

New Five-Year Developmental Plans

As part of the presentation of the request for departmentalization, each area of subject matter re-evaluated their Five Year Developmental Plans and revised them in light of the developments which have already taken place. Thus we have new plans which are current. Each subject matter area (department) has short range and long range plans for development. Some areas are in the beginning stages of development while others are much more sophisticated in their development due to the fact that they have larger staffs and have been established for a longer period of time. These plans are presented in Appendix A.

New Faculty Manual of Policies and Procedures of the School of Home Economics

The Executive Council of the School of Home Economics developed a new Faculty Manual of Policies and Procedures for the School of Home Economics. This was presented to the faculty at the September faculty meetings which were held before registration day. Various committees worked on this and evolved policies and procedures for the numerous activities that go on within the School. In some instances, new policies and procedures were developed; in others, the standing ones were updated. This manual acted as a tool this past year for more efficient operation of the School.

Recruitment Activities

Certain activities took place which were concerned with recruitment of candidates and certain other activities were performed pertaining to admissions. One person worked on this for about one-third of her time, thus the accomplishments in this area were somewhat limited. There is a real need for greater activity in recruitment. We are getting better students applying and more students applying, but the attrition rate as of June 1966 was nearly 50%. There is some evidence that removing the curfew for women and the negative reaction to "YA-HOO" had something to do with this higher rate of attrition. We need to investigate this situation and see what is really going on which is effecting this.

The report of recruitment and admissions is to be found in Appendix B. Perusal of this will give a clear picture of what activities have been carried on in the past year relative to recruitment and admissions. Data is also presented to verify our status in relation to the current enrollment situation.

VII. SPECIAL PROJECTS AND PROGRAMS.

Improvement of present Faculty.

There remains the problem in the School of rehabilitating certain faculty members who have been here a long time and who have tenure. Various activities have been carried out in order to improve this situation. They are as follows:

In the continued striving for improvement, faculty members have -

1. Submitted outlines of their course offerings to department chairmen and the Dean of the School of Home Economics. The outlines include information relevant to content, teaching methods, resources, and bibliography. Opportunities for sharing information about course content in various subject matter areas have been provided.

2. Conducted evaluations of their courses at the end of the semester.

3. Participated in conferences with the department chairmen and/or Dean relative to professional development.

4. Continued graduate and post-graduate education.

5. Participated in a one-week workshop on Team Teaching under the direction of Dr. Henry Olds, Harvard University.

6. Participated in a one-semester Seminar on Curriculum under the direction of Professor Helen Vaznaian.

Despite these efforts, very little progress has been made in several cases. The poorest teacher among the faculty persists in saying that she is an excellent teacher and there is no need for her to take further course work or study in her subject matter area. Others who need to improve are more openminded about this type of improvement. Assignments for poor teachers will have to be carefully worked out so that the courses are not impaired by their poor teaching. These faculty members will have to be assigned to lower level courses and will have to have other work assignments to make up a fulltime work load.

Reassignment of Personnel's Duties.

There has been a reassignment of responsibilities within the present staff for more effective performance in teaching, extension and research. The assignment of two-thirds of the extension fa-

culty to parttime resident teaching is of particular significance. Secretaries in the School have been reassigned for performing more effectively within the total operation of the School. However, there remains a great shortage of clerical help to support the development of the departments and the research activities. This is hampering the growth of the departments and the School.

New Head Start Training Program

The Human Development Department presented a proposal for a Head Start Training Program. A grant of $8,250 was received from the Office of Economic Opportunity to operate this program from June 23 to July 2nd. This is the first time we have engaged in this type of effort and is a credit to Dr. A. Raymond Cellura's leadership.

VIII. FUTURE PLANS AND NEEDS

Need for New Personnel and Sufficient Rank and Salary to Attract Same.

It is not only necessary to secure new positions for the School but also vital to have sufficient rank and salaries to attract people to our faculty. Each department is developing and expanding at both the undergraduate and graduate levels, and with increased enrollment in courses and a growing number of student majors in the School, it will be necessary to have new positions for the coming year. The market in home economics is so tight that we have greatly increased our recruitment activities to try to secure qualified people. One of our major problems is the fact that we have several faculty who are very poor teachers and who downgrade the program by their incompentencies. We must, therefore, have adequate staff to overcome this handicap. We need to bring in more good people to raise the caliber of our course work.

The School is in a critical stage of its development. We have lost bright young undergraduate women this past year because our course work was not challenging enough. They transferred out of the School of Home Economics. We must bring in good teachers to counteract this situation.

Needs of Departments for New Programs

The departments evolved descriptive analyses of their plans for new programs and policies for next year and the ensuing years. These are to be found in Appendix C.

New Laboratories

The School of Home Economics has requested monies for renovations for 1966-67. These include such things as fluorescent lighting in three rooms, blackout shades which will permit the viewing of films and projections in three rooms; the installation of corkboard on portable screens; and the renovation of two rooms into offices. In addition to this, it will be necessary to have available for September 1966, a Home Economics Education Laboratory and a Home Management Laboratory.

If the Homestead is available next year for our use, we need approximately $2,000 worth of classroom furniture in order to make the Home Economics Education laboratory adequate as a teaching laboratory.

If the Homestead is not available for these two teaching laboratories next year, September 1967, then two alternative plans are proposed which will require renovations:

Plan A.

It would be necessary to obtain two large rooms outside Skinner Hall that would be suitable for a Home Economics Education Laboratory and a Home Management Laboratory. To renovate a room for the Home Economics Education Laboratory would require sectioning the room for reading materials and for viewing of audio-visual material. This renovation, plus the necessary laboratory and classroom equipment, would come to approximately $8,000.

A second large room would be needed for the Home Management Laboratory. This would require special wiring for large and small electrical equipment; it would also require water installed in sink cabinets. Laboratory and classroom furniture, as well as equipment, would also be needed for this room. This would cost close to $9,000 to renovate and furnish.

This would total $17,000 for renovating two laboratories outside of Skinner Hall.

Plan B.

It would be necessary to find additional animal laboratory space for the experiments of Dr. Lojkin, Dr. Bert and Dr. Reber over and above that space which Dr. Reber will be getting in Morrill Hall. Such additional space would have to have facilities of water, controlled heat and air, and garbage disposal. Renovations for a new animal laboratory would be approximately $3,000.

Then Room 17, which is now being used as an animal room, could be turned into a Home Management Laboratory. It already has water available and suitable electrical wiring could be tapped from available sources in the building. The cost of renovating and equipping Room 17 into a Home Management Laboratory would be about $8,000.

In order to have a Home Economics Education Laboratory in the building, it would be necessary to convert the auditorium for this purpose. This would mean renovating the auditorium into a multi-purpose room for Home Economics Education class work. This would entail dividing the room into sections for various purposes and equipping the facilities with classroom furniture and equipment. This would probably cost around $9,000.

For renovating a new animal room, the auditorium, and Room 17, the cost would be approximately $20,000.

In summary, it is requested that the amount of $4,050 for items one through five, be appropriated to the School of Home Economics as of July 1, 1966.

In addition, if the Homestead is not available next year, the sum of $17,000 is requested for Plan A, or the sum of $ 20,000 is requested for Plan B.

Finally, the total amount requested is either $4,050 or $19,050-$22,050, depending on the availability of Home Management and Home Economics Education laboratories for September.

New Addition to Skinner Hall

Planning money is requested in the year 1968 for an addition to Skinner Hall, or new building, to accommodate increased enrollment of majors and students in classes along with the expansion and development of each of the five subject matter departments in all teaching, extension and research activities.

In order that each department can expand and develop in the three functional aspects of their work -- teaching, research and extension -- it will be necessary to have an addition to Skinner Hall by 1970.

We are now at the stage where we have to move out of Skinner Hall into other facilities in order to take care of the development and expansion of the Human Development subject matter area. This includes office space for new and present faculty members and graduate assistants, laboratory rooms for research, and a seminar room for graduate work. In Food and Nutrition, the animal research work must be moved into facilities outside Skinner Hall. This has yet to be accomplished.

At this time we do not have adequate space for graduate assistants and students in the other departments, or enough faculty offices for staff coming in September 1966; we do not have adequate facilities for the necessary teaching laboratories that are needed for supporting our course work. This is the situation facing us as of September 1966.

We expect increased enrollment as follows:

As of September 1966:

Class of 1967	-	53
Class of 1968	-	95
Class of 1969	-	101
Class of 1970	-	125
Total		374

10% increase based on September 1966 figures:

Fall 1967	- 411
Fall 1968	- 452
Fall 1969	- 497
Fall 1970	- 546

We expect the trend to continue of greater demand for our current courses by the present students. This will increase the number of sections of classes and will require additional laboratory space.

With the initiation of new policies and programs in each of the five subject matter departments, we will need additional facilities for specialized teaching laboratories, offices, seminar rooms, research work areas, teaching classrooms, and regular classrooms.

Continuing Education

There is a real need to provide graduate courses in Home Economics off campus, preferrably on the Boston campus. The Willis Report has recommended that teachers in secondary education acquire a master's degree. We should be providing this type of educational opportunity to home economics secondary school teachers.

To offer more extensive graduate work, we should offer, beginning 1967, graduate courses on the Boston campus. These courses would be for graduate credit and would be transferrable for a degree which would be awarded on the Amherst campus.

Additional courses should be given for the improvement of secondary school teachers in home economics. These courses could be taken for credit but not necessarily toward a degree. These also would be offered on the Boston campus. We should provide leadership in the state for home economics on the higher education level. We have barely begun to do this. There is an urgent need to improve teachers already in service and to provide master's degree work so that secondary school teachers in home economics can obtain a master's degree from the University. Non-credit extension seminars, workshops and courses should be expanded to meet the needs and demands that are constantly being made by the people of the state of Massachusetts.

We have been hampered in our initiating of this endeavor due to lack of staff, lack of course work and programs to meet these needs and demands.

Critical Need for Additional Clerical Assistance

The situation of support staff for the departments is extremely critical. We do not have sufficient clerical help to write up proposals for research grants, to prepare materials for course work, to help in the development of the departments, and to carry on the operational and administrative activities of the departments and School. All the secretaries in the School of Home Economics have been realigned as to their work assignments for greater efficiency but this has not relieved the shortage of help. We must have additional positions for secretaries to help us carry on our work. We are not able to function effectively under the present setup.

APPENDIX A

FOOD AND NUTRITION

DESCRIPTION:

Food and Nutrition encompasses subject matter concerned with man's use of food and its relationship to his total health and well being.

PURPOSE:

The purpose is to explore the relationships of the principles and theories of the physical and biological sciences to Food and Nutrition. Economics, sociologic, and psychologic factors are included.

OBJECTIVES:

1. To provide students with the basic courses for careers in Food and Nutrition.

2. To service other Schools and Departments in the University with Food and Nutrition courses required in their curricula.

3. To provide professionals and non-professionals with opportunities for continuing education.

4. To evaluate on a continuing basis the course offerings and methods of teaching in terms of changing needs.

5. To expand the graduate program.

6. To expand the research program.

7. To promote the recognition of the need for a basic course in Nutrition for all students in the University.

Five-Year Projections for Food & Nutrition

UNDERGRADUATE

The undergraduate major will be in Food and Nutrition. Curricula will be designed to provide the student with a liberal education and professional competency. A curriculum is available for a major in Food and Nutrition who would desire to enter Graduate School. A major could fulfill the Home Economics Education requirements for

for teaching in secondary schools. There is a growing demand for graduates with specialized preparation in fields of concentration. Two examples of such specialized fields of concentration are presently offered under the program leading to the B.S. degree in Home Economics. They are Foods in Business and Dietetics and Institutional Administration.

Dietetics and Institutional Administration - The present curriculum in this major provides the academic requirements established by the American Dietetic Association for the fifth year Student Dietetic Internship or a Master's program. The acute shortage of dietitians and nutritionists for positions as administrators, teachers, and research, therapeutic, and clinic dietitians highlights the need for a continued emphasis of the curriculum. An expansion of this major field will be designed to meet the demand for professional administrators of school food services.

Food in Business - The existing curriculum in this major prepares the students for positions dealing with product promotion, recipe and food testing, and public utility service. For those interested in research and product development, a program with a high science requirement is available. Students who have the interest and aptitude for employment in the communication field may select a program with emphasis on oral, visual, and written communications. Positions are open in the field of communications for the student who combines her knowledge of Food and Nutrition with Journalism, English, Public Speaking, Television and Radio. Graduates with a major in this sequence are also placed in advertising and public relations agencies or with consulting firms. Future plans include the use of closed circuit television for training in this communications media. For example, food advertising on color television is a very big commercial operation.

Projections include the development of undergraduate field of specialty in Nutrition - A program entitled "Curriculum in Nutrition" has been proposed by the American Institute of Nutrition working on graduate and undergraduate programs. It is planned to use their proposal as a basis for developing our undergraduate program. In the undergraduate program, Nutrition and Food Science courses account for six units only. It is in the graduate program that the individual specializes. A significant number of courses in Food and Nutrition are available now which would enable us to offer an undergraduate and graduate education in the field of nutrition.

There is no nutrition laboratory course available either at the undergraduate or the graduate level for students specializing in Food and Nutrition in the School of Home Economics. The development of such a laboratory course is planned. In this course we would hope to expose the students to some laboratory experiments

the students to some laboratory experiments involving radioisotopes. The equipment needed for this type of experimental work is expensive and extensive. The amount of equipment needed for teaching such a laboratory projected over the next five years would probably cost about $50,000. It is planned to prepare a request for an equipment grant from National Science Foundation or the Atomic Energy Commission to help purchase the needed laboratory equipment. It will be necessary for the subject matter area to add to present offerings such courses as the Chemistry and Physics of Food Preparation, Research Methods in Food and Nutrition, Nutrition for Community Services, Food Purchasing and Management, Institutional Food and Equipment Purchasing, and School Food Service Administration.

GRADUATE

Development of graduate department of Food and Nutrition - When the present area chairman accepted the position in this institution, the administration supported and encouraged him to direct an expansion of the present research in Food and Nutrition and to develop a Master's and Doctoral degree program. Departmentalization at the undergraduate level would facilitate the development of the graduate department. We must departmentalize to enable us to give advanced degrees in specific disciplines. The specific discipline in this case is Food and Nutrition. Therefore, our graduate curriculum must be entitled, "Food and Nutrition." A program leading to M.S. and Ph.D. degree program in Food and Nutrition has been approved by the appropriate committees in the School of Home Economics.

The most important projection during the next year is the development of the Ph.D. graduate program. At the present time the proposal is being discussed within the administration. Clarification of our position will enable us to proceed with budgetary requests. It would be anticipated that we could have added to our available assistantships one research or service assistantship each year.

RESEARCH

Experiment Station projects in Food and Nutrition were closed at the end of the 1962-63 fiscal year. New projects are under way. At the present time, there is a project supported by the National Institute of Health on the utilization of tryptophan during pregnancy, and a study supported by a Faculty Research grant on the elimination of off-flavors and the retention of moisture in the reheating of cooked meat. A Faculty Research grant has been approved to study the protein quality of irradiated marine products. A Faculty Research grant has been approved to study processing methods to improve the

quality of algae. An Atomic Energy Commission contract has been in effect for two years to determine the wholesomeness of irradiation pasteurized clams. An Office of Surgeon General Contract has been in effect for two years to support the compilation of an annotated bibliography on the wholesomeness of irradiated foods. Recently a grant has been awarded by the Bureau of Fisheries to determine the effect of radiation on the odor, flavor, and taste of fish.

However, additional grants for projects in Food, Nutrition, and Institutional Administration are needed to develop an active and adequate research program in each of these fields.

The future research program will depend primarily on the interest and background of the subject matter area personnel. In each of the fields within the area there is a vast variety of challenging problems to be solved. Projects will be submitted for financial support from several agencies as research personnel becomes available. An expanding research program will require additional space and facilities.

EXTENSION

The purpose of the Extension program in Food, Nutrition, and Health is to help bridge the gap between man's knowledge in these areas, and the individual's application of this knowledge. In fulfilling this purpose, emphasis is placed on educational programs concerned with the following problem areas:

1. The need for better understanding concerning nutrition, and its relationship to total health and well being.
2. Understanding of nutritional needs throughout the life cycle.
3. Understanding of the factors influencing food practices and habits.
4. The concept of weight control.
5. Increasing understanding of food values and food composition.
6. Increasing understanding of food production, marketing and services and their economic effect on the consumer.
7. Safety of food (including the role of regulatory agencies).
8. Medical quackery (including nutrition).
9. Emergency preparedness.
10. The interpretation of research.

* * *

HUMAN DEVELOPMENT

DESCRIPTION:

The program in Human Development is concerned with the study of substantive and methodological problems related to the analysis of stability and chance of human characteristics over the life cycle.

PURPOSE:

The program in Human Development is intended to provide an organizational setting in which:

a) social and biological scientists may focus the analytic power of their disciplines upon developmental phenomena

b) students interested primarily in the study of stability and change in human characteristics over time may acquire the competencies required to analyze these phenomena

c) techniques may be developed that are specially suited to facilitate the study of developmental phenomena

d) the units of analysis generally associated with a particular discipline may be organized into a unified science of human development.

STAFF:

The Human Development faculty will have representatives from the social and biological sciences whose interests are in human development. Among the disciplines to be included are:

1. Early Childhood Education
2. Developmental Psychology
3. Social Psychology (with Psychology or Sociology as root disciplines)
4. Cultural Anthropology
5. Physical Anthropology
6. Pediatrics
7. Gerontology

THE UNDERGRADUATE PROGRAM:

The focal point of the undergraduate program continues to be in Child Development. The Child Development program provides the student with the theoretical, empirical and philosophical background

necessary for work with preschool age children in nursery schools, clinics for exceptional children, hospital recreation programs and community welfare agencies. In addition, the program provides preparation for graduate training in education, psychology, social work and sociology.

The major emphasis of the undergraduate program in Child Development is in liberal arts or general education. Students also receive an introduction to the areas of study in Home Economics, a concentration of courses related to Child Development in the social sciences and specialized courses in early childhood education.

GRADUATE PROGRAM

Currently, an M.S. is offered in the Human Development area. However, a program leading to the Ph.D. in Human Development is required. The purpose of the graduate program is to increase the opportunities for specialization in the study of developmental phenomena. Interests may range from the study of psycho-physiological growth phenomena to systems analysis in contemporary social institutions. The program will emphasize theoretical and empirical experience in three areas of human development:

1. Psychological development
2. Socio-cultural development
3. Political-economic development

Doctoral candidates will be accepted to specialize in one of the three areas, but will also be expected to acquire theoretical and empirical experience in the other two. The curriculum will be organized to: a) place emphasis throughout the training period on the development of research and teaching competencies in the student's area of specialization, and b) to provide a milieu in which the student becomes familiar with the rationale, concepts and techniques which characterize the activities of social scientists in related disciplines. Essentially, the program would involve course work in the areas of theory, process and methodology relevant to the study of developmental phenomena.

RESEARCH

Research activities will be in general focus on developmental phenomena that reflect the differing interests of department members. Research programs currently in progress include:

A social learning approach to the analysis of academic achievement behaviors.

An analysis of social class value systems.

The relationship between maternal style and cognitive development of the child.

COMMUNITY SERVICE PROGRAM

The major responsibility of the program in Human Development is to the undergraduate and graduate education of our students. However, the department shares with the University as a whole, strong and valuable traditions binding its intellectual resources to community needs.

The function of these community service programs in Human Development is:

a) to facilitate the flow of ideas to the community

b) to provide translations of these ideas wherever feasible into sound practices, and

c) to derive from the crucible of community experience ideas which can be translated into the research and teaching activities of the University.

EXTENSION PROGRAM

The Extension Program in Human Development represents an important formal link with the community. Through programs designed to provide continuing education for adults and young people, each of the functions noted above are manifest in a way that underscores the University's commitment to community service.

* * *

HOME ECONOMICS EDUCATION

DESCRIPTION:

Home Economics Education is an area of study encompassing background knowledge from the subject matter fields of home economics integrated with specialized procedures and philosophy from education.

PURPOSE:

The program in Home Economics Education is intended to provide professional education for future teachers of home economics in secondary and post secondary schools, and for the Cooperative Extension Service. Opportunities for the continuous education of those already in the profession or for those returning to the profession will be made. In addition, responsibility for the leadership in the development of Home Economics Education programs which are dynamically responsive to the times will be assumed.

OBJECTIVES:

1. To provide undergraduate majors of the School with specialized instruction as preparation for professional careers in secondary education and extension. The program of study will include the major subject matter areas of human development, and textiles, clothing and environmental arts.

2. To provide professional home economists with opportunities for continuous education by offering in-service training programs, late afternoon, evening and/or Saturday classes, and by providing individualized programs of study for those women returning to the profession after a period of absence.

3. To develop and expand the graduate program to meet the growing demands and needs within the state.

4. To develop a research program with cooperating disciplines and with cooperating agencies at the local, state and national levels.

5. To provide leadership within the state for the development of a viable program of Home Economics Education at the secondary school level.

UNDERGRADUATE

The undergraduate program in Home Economics Education continues to combine liberal arts course work with professional preparation. The nature of the course work focuses upon the development of insight and understanding of human growth and development, knowledge and skills essential to interpersonal relationships, competencies in the management of individual and family resources, as well as knowledge essential to basic competencies in the fields of foods and nutrition, and textiles, clothing and environmental arts.

A significant increase in enrollment is expected to occur in the department of Home Economics Education due to the unprecedented focus upon the significant contribution that teachers of Home Economics at the secondary school level can make in creating meaningful programs of education for homemaking, for occupational employment, and towards specialized programs (team approach) for the disadvantaged. Federal Aid Programs -- The Elementary and Secondary Education Act of 1965, the Urban and Rural Community Action Programs Title II, Pt. A, the Vocational Education Act of 1963, the Work-Study Program, Sec. 13 -- will prove highly supportive in the implementation of innovative and imaginative programs of home economics at the secondary school level.

It perhaps is worthy to note that our present enrollment has tripled within one year. Based upon this and the aforementioned reasons, it seems reasonable to assume our enrollment will double within the next five years.

The Department of Home Economics Education expects:

1. to revise undergraduate curriculum in order that it be more dynamically responsive to the times. This will necessitate the introduction of new courses, the revision of some, and the elimination of others.

2. to provide optional expanding experiences -- an affiliation with the Merrill-Palmer Institute, Mich.; directed field experiences with extension, community social agencies, and/or with specialized programs such as "Upward Bound."

3. to evaluate and introduce significant changes in the student internship program in cooperation with several school systems within Massachusetts.

4. to initiate a pilot or demonstration program in Home Economics Education at the Secondary School level with one or more cooperating school systems.

GRADUATE

The Willis' Report can be expected to have a significant impact upon the expansion of our graduate program at the Master's Level. The next five years are crucial to the establishment of a viable program.

It is expected that:

1. An increase in Consultant Services will occur as School systems expand existing programs in Homemaking and initiate programs in occupational wage-earning aspects of Home Economics Education.

2. An increase in in-service workshops for teachers of Home Economics Education will occur in centers for learning throughout the state of Massachusetts.

3. An increase in innovative interdisciplinary joing demonstration and/or pilot projects will occur:

    a) within the School of Home Economics at the University of Massachusetts

    b) with selected and/or cooperating schools throughout Massachusetts

    c) with industry related to occupational skills and knowledge gained through Home Economics Education

4. New courses will be introduced to meet the educational needs of teachers pursuing graduate work.

Imperative to the growth of the graduate program is the addition of professional and support staff. We expect that the present professional staff will quadruple within five years. Expansion demands cannot be met unless there is adequate support staff.

RESEARCH

Research facilities and personnel with experience and time to devote to research are not presently available in this area. Any contribution to the improvement of educational programs in home economics at both the college and high school level is dependent upon evidence obtained by individuals and groups carrying on various types of studies. Maximum value from these efforts will be derived only when conclusions and techniques find their way into classrooms and

serve as stimuli for changed practices and continued study by those directly responsible for teaching.

It is, therefore, the aim of this area to initiate, guide, and coordinate a long-range program of research involving graduate students in home economics education and secondary schools and teachers within the state. Responsibility for dissemination of findings thus obtained will rest upon this school. Able personnel, experienced in research activities and guidance of graduate students, will be necessary additions to the staff.

* * *

MANAGEMENT AND FAMILY ECONOMICS

DESCRIPTION:

The area of management and family economics is concerned with achievement of goals and mediation of values within the family.

To the public, home management is often broadly conceived as being synonomous with homemaking. As a field of study, however, home management and family economics is relating, coordinating and integrating the various aspects of home economics and other disciplines through a knowledge and application of the concepts of decision-making and organization.

PURPOSE:

Through professional and liberal subjects,

1. The education of

    a. Undergraduate students, both non major and in a proposed major
    b. Graduate students through advanced professional study in the area leading to a Master of Science Degree
    c. Professional and non-professional adults in the subject matter of the area

2. The investigation of new and related bodies of knowledge through independent and/or cooperative research.

Such an education should prepare individuals to do an effective professional job and to understand relationships of the subject matter to the economic and cultural structure of our society.

OBJECTIVES:

The objectives of the field are:

1. To increase students' understanding of how a family performs its roles in society.

2. To help students and families become aware and recognize resources available to families, as consumers and as social units.

3. To prepare students to apply knowledge and understanding in the intelligent evaluation and informed choice of consumer products.

4. To help families think objectively in the allocation of the family resources, economic and social, and in the measurement of the consequences of choices.

5. To provide students with an understanding of changes in the distribution system of their relationship to consumer economic behavior.

Projections For Management and Family Economics

This projection is directed toward the development of a department with a more balanced education contribution to the profession of Home Economics. The various aspects of the program are designed to complement and support each other rather than compete.

Undergraduate

The Management and Family Economics offerings have served students in the various majors in Home Economics and other departments of the University. It is anticipated these offerings will continue as contributions to other majors.

In addition, it is proposed that a major curriculum be instituted entitled Management and Family Economics. The purpose will be to provide an integrated course of study in Home Economics based on the social sciences as related to needs of families in providing for living amenities at various income levels. Students who choose this curriculum will be prepared to work with adult education, social, and welfare agencies as well as having a foundation for graduate work in this subject matter area. It is proposed this curriculum be established in 1967-68. It will be unique in Massachusetts, as no School of Home Economics in Massachusetts has either an undergraduate or graduate major in management and family economics.

It will be necessary to revise and add courses to implement this curriculum. Additions to the faculty will be necessary as well as provisions for laboratory space.

Graduate

There exists a critical shortage of persons holding advanced degrees in Management and Family Economics and there is an increasing demand for persons with this education. The demand for graduates has always far exceeded the supply. Only a limited number of institutions have graduate programs in Home Management and Family Economics, particularly on the doctoral level. It is imperative that provisions be made for graduate work, although realistically it must be limited to the master's degree at the present.

A graduate program leading to the master's degree will rely heavily on the supportive disciplines of economics, sociology, anthropology, social psychology and labor policy.

Graduate students could concentrate in either of two fields:

1. Home Management theory and its application

2. Family Economics, with strong consumer economics orientation

An expanded graduate program could more adequately serve the needs of the following:

1. Degree candidates with an area of interest in management and family economics

2. Degree candidates in other Home Economics areas of graduate emphasis (heavy potential is anticipated in Home Economics Education)

3. Qualified non-degree students seeking refresher courses in this subject matter area

Teaching staff and research facilities will be necessary to establish a graduate program in the area. These must be provided as soon as possible.

Research

Research in the area of Management and Family Economics has not kept pace with the demand, both from the public and the professional worker and need for increased knowledge in these areas. Three broad areas for investigation as envisioned now are:

1. Theoretical studies to gain further knowledge about the process of management

2. Consumer behavior in relation to allocation of resources

3. Practical studies in the development of homemaking skills as a basis for determining both the content and teaching methods for the expanded vocational training program

Research will develop with the graduate program. Staff added to the department will be selected partially on what contributions they can make to directing research activities of graduate students as well as engaging in research activities themselves. Plans are under way at the present to initiate regional cooperation in research in this subject matter area. In addition, scholarships, grants from foundations and graduate assistantships will be sought.

Extension

The purpose and objectives of the department are also the purpose and objectives of the extension program in the department. However, as an off-

campus program that is directed toward volunteer participants, the extension program is oriented to problem solving. Some of the problem areas that face Massachusetts families include:

1. Identifying family values and defining goals that are consistent with these values

2. Becoming aware of resources, and developing ability in choosing and utilizing them for maximum satisfactions

3. Organizing and coordinating many activities of family members into a meaningful pattern

4. For some segments of our population, escaping from poverty to become full participants in our productive efforts and standards of living

5. Obtaining clear, honest information in order to make informed choices

6. Becoming informed about the economics areas and issues affecting the welfare of families

The extension personnel will direct their efforts toward solving these problems to a varied audience in a variety of ways. While continuing to support county personnel by guiding and advising on county programs, more emphasis will be placed on developing programs with depth, using a team approach to problems, and introducing more formal methods of teaching to certain audiences. Extension personnel will teach their subject matter to other professional workers who are interested in family welfare, and work with agencies and groups in developing educational opportunities for families. It is anticipated that more emphasis will be placed on working with disadvantaged families of our society.

* * *

TEXTILES, CLOTHING AND ENVIRONMENTAL ARTS

DESCRIPTION:

This is an area of study which encompasses subject matter in Textiles, Clothing and Environmental Arts. The term environmental arts is used here to include studies of art, interior design and fashion merchandising as they apply to textiles, clothing and the home.

PURPOSE:

Culture and professions are clearly interdependent in our society. Based on this philosophy, the subject matter area of Textiles, Clothing and Environmental Art assumes as its purpose:

1. the education of:

    a. undergraduate students majoring in Fashion Merchandising and Interior Design, through the study of liberal and professional subjects;

    b. non-major undergraduate students;

    c. graduate students through advanced professional study in the area leading to a Master of Science degree;

    d. Professional and non-professional adults in the subject matter of the area.

2. the investigation of new and related bodies of knowledge through independent or cooperative research.

Such a program of liberal education and specialized study is intended to stimulate personal and professional growth; to further the understanding of the subject matter as it relates to the economic and cultural structure of our society; and to develop and motivate individual effectiveness in serving human wants and needs as related to the subject matter.

OBJECTIVES:

The area of Textiles, Clothing and Environmental Arts indicates that it aims to:

A. Extend the frontiers of knowledge concerning textiles, clothing and the environmental arts.

B. Contribute to liberal and professional education through the study of textiles, clothing and environmental arts.

C. Use the principles and theories from the natural sciences, the social sciences and the humanities in the study of textiles, clothing and environmental arts and explore the interdisciplinary relationships among these principles and theories.

D. Develop appreciation of textiles, clothing and environmental arts as social and cultural media.

E. Examine the economic significance of the production and distribution of textiles, clothing and home furnishings.

F. Increase knowledge regarding the physical characteristics of textiles, clothing and home furnishings.

G. Relate the social, cultural, physical and economic aspects of textiles, clothing and the environmental arts to the concepts of personal-family management.

H. Further the understanding of the art, design and aesthetic aspects of textiles, clothing and home furnishings.

PROJECTIONS FOR TEXTILES, CLOTHING AND ENVIRONMENTAL ARTS

ACADEMIC

Undergraduate

This department will continue to develop its undergraduate program in the following ways:

Through the continuous re-evaluation of courses for content and method;

Through the introduction of specific courses to further implement and strengthen the existing Fashion Merchandising major;

Through expansion of the Retail Field Program, thereby offering students a broader, more diversified work experience as well as field experience in more specialized areas of interest;

Through the introduction of a second major of study, entitled Interior Design. Additional teaching personnel, equipment and research facilities will be required to serve adequately the needs of students majoring in this new area;

Through development of minor areas of study utilizing the facilities of the two major programs, servicing others interested in this subject matter area;

Through the development of a Distributive Education Program utilizing course offerings of the TCEA curriculum and, the School of Education and the School of Business Administration.

"Distributive Education refers to a vocational, retail-oriented program of study offered at the secondary school level. Curricula, content of courses, work-study features and certification of teachers for such programs are carefully prescribed and supervised by each state's Board of Education or equivalent accrediting institution. The Federal Government, under the provisions of the George-Barden Act of 1946 and Vocational Act of 1963, may share with each state the cost of maintaining Distributive Education programs in secondary schools. Certification requirements for Distributive Education teachings differ in the various states. Candidates may check with the state's Department of Education. Preparation for certification to teach Distributive Education is currently offered by outstanding teachers' colleges and universities throughout the country."

Graduate

The emphasis in this subject matter area at the graduate level is upon:

The historical aspects of Textiles, Clothing and the Environmental Arts;

The behavioral aspects of Textiles, Clothing and the Environmental Arts;

The marketing and consumption of Textiles, Clothing and other goods and services implied in the term Environmental Arts.

An expanded graduate program will more adequately serve the needs of the following clientele:

1. degree candidates with an area of interest in TCEA subject matter;

2. degree candidates in other Home Economics areas of graduate emphasis;

3. degree candidates from other graduate schools of the University;

4. qualified non-degree students seeking refresher courses in this subject matter area.

Additional teaching personnel and research facilities must be provided as soon as possible to support an adequate program of graduate study in Textiles, Clothing and the Environmental Arts leading to the degree of Master of Science. It is expected that this major area at the graduate level will be initiated September, 1967.

RESEARCH

Limited amount of existing research data available to support instruction at both the graduate and undergraduate levels indicates an urgent need for depth studies relating to:

The historical aspects of Textiles, Clothing and the Environmental Arts;

The behavioral aspects of Textiles, Clothing and the Environmental Arts;

The marketing and consumption of Textiles, Clothing and other goods and services implied in the term Environmental Arts.

In view of the urgent need for research in this subject matter area, scholarships, graduate assistantships, grants-in-aid and foundation grants will be sought; personnel will be added and present teaching staff will be given time to engage in research activities.

EXTENSION

Purpose

To provide opportunity for Massachusetts families, adults, youth and professionals dealing with family problems to continue their education in the areas of textiles, clothing and environmental arts; to assist in the increased appreciation, understanding and evaluation of their visual and cultural environment in relation to the home and family members.

Developmental Plans

The Extension program in the Textiles, Clothing and Environmental Arts area will be developed to meet the following problem areas:

1. National problems affecting the home and community i.e., density and complexity of population, mediocrity and ugliness of environments, and disadvantaged families in an affluent society.

2. Lack of basic art and design in formal education of county extension agents, both adult and youth.

3. Interest of basic art and design in formal education of county lay peoples of all ages.

4. Tremendous social and economic pressures on families in decision making, determination of values, standards, consumption patterns and the use of human resources.

5. Technological advances in textiles, clothing and furnishings.

6. Interest of lay people in programs with depth of subject matter.

7. Integration of knowledge of extension specialists in all home economics subjects as they affect home and family living.

Goals and Programs

The goals and related problem-oriented programs, for extension in this department, will be:

1. To create an understanding of the role of art and design in family living;

2. To stimulate an appreciation for design and color as they affect the home and family clothing;

3. To provide families with information on the current acceptable practices in decision making, improved buying practices and the use of family resources;

4. To continue the assistance to families in understanding the technological advances which affect their behavior in the market place;

5. To continue the training of agents and lay people in those skills which are fundamental to providing clothing and home furnishings;

6. To find methods and improved techniques for working with disadvantaged families;

7. To use knowledge, principles, and skills of textiles, clothing and environmental arts in assisting Massachusetts families to assess their situation, their resources and values and to reach their goals.

To meet present day demands and in order to expand effectiveness in the areas outlined, more staff is needed.

* * *

APPENDIX B

SCHOOL OF HOME ECONOMICS

SUMMARY REPORT ON RECRUITMENT

Academic Year -- 1965-1966

Nature of Recruitment Activities

I. The year, 1965-1966, has perhaps been unique in the number of analyses which have been made to discover increasingly effective means to attract and keep students of high caliber in the School of Home Economics. The following summarizes our studies:

A. High School Guest Days

An analysis of those who attended the High School Guest Days during the month of October, 1965, reveals that 71% of those who indicated an interest in the School of Home Economics at these sessions did indeed apply for admission. Of this percentage, 66-2/3% were accepted by the Admissions Office. These results deem it worthy of intensified efforts to make our specific role increasingly significant. Appropriate extension of effort on our part would be to:

1. Keep the main office open from 11 AM to 1:30 PM on High School Guest Days in order to answer questions and extend a warm welcome to those who wish to see the physical plant at Skinner Hall.
2. Develop a tour-guide service to accommodate those who wish to see the School of Home Economics following the conclusion of the general orientation session at 12 noon. Members of the Home Economics College Chapter or work scholarship students might perform this service.

B. Transfers Within, Out or Into the School of Home Economics

On November 23, 1965, an analysis of transfers in, out, and within the School of Home Economics was presented to all faculty advisers. Essentially the data showed:

1. That the greatest number of students transferring OUT of the School of Home Economics occurred during the first three semesters of a student's academic program.
2. That the greatest number of transfers - in, out, or within occurred on both registration and counseling days.
3. More students transferred into the School of Home Economics than transferred out of the School.

The following chart summarizes the findings.

Summary Report on Recruitment

	1964 Jan.-Dec.	1965 Jan.-Nov. 23	Nov. 23, 1965 through May 12, 1966	Total
Transfers OUT of School of Home Economics	41	40	39	120
Transfers WITHIN School of Home Economics	12	10	12	34
Transfers INTO School of Home Economics	45	65	49	159

An analysis of the data for the period November 23, 1965 - May 12, 1966 reveals the following transfers occurred:

	TRANSFERS		
Department	Within	Into	Out
TCEA	8	28	26
HEEd.	2	7	4
HD	1	10	3
DIA	1	4	4
FN	0	0	2

There were inherent weaknesses in the study due to the lack of some pertinent data on the Transfer Record form. Consequently, the form has been revised (copy attached) and will prove most helpful in future studies.

C. Longitudinal Study

We are in the process of completing the data for our first year of the four-year study of the Class of 1969. One value which seems to have already accrued is the fact that those who were predicted to achieve a 1.9 cum did considerably better. Those whose predicted cums were 1.8 or less did significantly poorer than expected. Implication: any student admitted to the School of Home Economics with a predicted cum of 1.8 or less must be considered for the present a major risk. This information and all related data have been presented to Dr. Tunis.

II. Direct Recruitment Activities

A. Follow-up letters were sent to 250 principals and guidance counselors in the state of Massachusetts regarding the availability of professional staff members for the presentation of career information in the field of Home Economics to students interested and qualified for University admission.

Summary Report on Recruitment

B. Career Assemblies and Programs

1. School Programs

Date	Location	Audience	Speaker	Contact Person
Dec. 13	Attleboro High Attleboro	32 Junior & Senior College Bound	H. Vaznaian	Elizabeth M. Kelley, Guidance Counselor
Dec. 13	Newton South High Newton Centre	107 Junior & Senior College Bound	H. Vaznaian	Esther Mathews, Guidance Counselor
Jan. 12	Hawley Junior High Northampton	44 8th Grade Top	M. Sullivan	Home Economics Teacher
Jan. 13	Wachusett Regional High, Holden	27 Grades 10,11,12	H. Vaznaian M. Sullivan	D. Geraldine Guertin, Guidance Counselor
Jan. 24	Amherst Regional High, Amherst	27 Grades 11, 12	M. Sullivan	Marjorie Day, Home Economics Dept.
Jan. 27	Watertown High Watertown	57 Grades 10,11,12	D. Davis H. Vaznaian	Mr. Ed. Colbert, Dir. of Guidance
Feb. 10	Milton High Milton	32 Junior & Senior College Bound	H. Vaznaian	Helen Jane Sears, Guidance Counselor
Mar. 8	Newton High Newton	32 Grades 11, 12	H. Vaznaian	Elinor Brillante, Home Economics
Mar. 16	Classical High Springfield	26 Grades 11, 12	H. Vaznaian	Mrs.Margaret Ramos, Guidance Counselor
Mar. 21	Weeks Junior High Newton Centre	500 Grades 7-9	Diane Ward	Diane Ward, Home Economics
Mar. 24	Bigelow Junior High,Newton Corner	340 Grades 7-9	Sara Pettinelli	Sara Pettinelli, Home Economics
Mar. 29	Warren Junior High,W.Newton	700 Grades 7-9	Helen Brehm	Helen Brehm, Home Economics
Apr. 20	Provincetown High Provincetown	75 Grades 9-12	Mary Thomas	Mary E. Thomas, Cape Cod Ext., Barnstable
Apr. 22	Nauset Regional High, Orleans	12 Grades 9-12	Mary Thomas	Mary E. Thomas, Cape Cod Ext., Barnstable
Apr. 26	Northampton High Northampton	42 Grades 10-12 College Bound	M. Sullivan	Home Economics Dept.
May 25	Agawam High Agawam	13 Grades 11, 12	M. Sullivan	Mr. Skolnick, Guidance Director

B. (continued)

2. TV Programs

An innovation in recruitment this year was the presentation of two career information programs - one oreinted to careers in Food and Nutrition, the other to Human Development. Dr. Elizabeth Rust, Associate Professor of Food and Nutrition, presented the first program; Helen R. Vaznaian, Associate Professor of Education, the second. The time was made available by the Cooperative Extension Service on Joe Kelley's Almanac, Channel 5, Boston. A total of 105 requests for specific career information, some from as far away as Maryland, were received as a result of the program. All requests were filled.

3. Personal Inquiries, Requests for Career Information

An analysis of the number of responses to letters requesting information about the School of Home Economics reveals that 264 requests have been filled with an accompanying personal letter. The breakdown is as follows:

a. Requests as a result of TV programs	105
b. Requests as a result of High School Guest Days	56
c. Other individual requests	103

In addition, congratulatory letters were sent to all students admitted to the Class of 1970, School of Home Economics. This numbered 221 (189 fall freshmen, 32 summer), bringing the total number of letters sent from this office to 485.

Based upon request, 27 personal interviews and tours of Skinner Hall and the University Campus were arranged.

III. Enrollment Data, Class of 1970

(The data is based upon the most recent IBM Compilation from the Dean of Admissions Office dated May 10, 1966.)

Total Number of Applications Received	350
Total Accepted	189*
Total Rejected	159
Total Unprocessed	2

Potential Enrollment on Total Acceptances

One hundred eighty-nine at University of Massachusetts, Amherst, plus 21 summer freshmen 210

Data as of June 6, 1966, shows the following:

Ninety-six fall freshmen have paid first and second fees and have, as of June 6, 1966, signed for Summer Counseling.

Seven Summer Freshmen have signed for Summer Counseling.

It therefore seems reasonable to assume we will have 105 students in the Class of 1970. This total number represents a disappointment in our anticipation of a class size of 125.

Relevant to this discussion are the following facts:

1. The total number of applications (350) for fall admission to the School of Home Economics represented an increase of 51% over the previous year.

2. Although the number of those admitted this year was totally greater than that of June 1965 - 210 vs. 174, our withdrawal rate was almost 50% (97 accepting; 93 withdrawing) among the fall freshmen. (189 plus 21 summer freshmen = 210) This would seem to warrant a follow-up study of the where and whys of withdrawal.

   The percentage of withdrawals by summer freshmen applying to the School of Home Economics is approximately 75%.

IV. Enrollment Data - Transfer Students

As of May 1, 1966, twenty-one students from a variety of Junior Colleges and Four-year Colleges had applied for admission. Information relevant to their acceptance is not available as of this writing.

Concluding Remarks

In my Summary Report on Recruitment 1964-1965, I recommended the following:

1. That continued effort be made to enlighten educators and Guidance Personnel of the significant changes in the School of Home Economics. In our written communications (250), in our enclosures of career materials, and in our visitations when requested, we have attempted to do this. However, results seem indicative of the need to undertake boldly, in addition, a one-day program designed for Guidance Counselors and Administrators utilizing the collaborative efforts of all department heads and administrative staff of the School of Home Economics.

2. That several aspects of the recruitment procedures and activities be carefully assessed. This has been done. The longitudinal study, though in its infancy, has already proved valuable. The analysis of transfers into, out of, and within the School of Home Economics has shed considerable light; and the analysis of the results of High School Guest Days has given direction.

3. That continued efforts must be made to strengthen the internal structure of the school on all levels.

4. That we recognize that we will never be able to do enough (how much is enough?) in visitation to schools, in dialogues with guidance counselors. The request and desire will always be for MORE. And the need is for MORE.

Finally, that serious consideration be given to assigning Recruitment Activities as the singular task of one member of the staff. A supportive committee from the faculty (perhaps a representative from each department) could be appointed to assist as needed. Or, perhaps, the Publicity Committee and those responsible for Recruitment could work together in a harmonious partnership, one enriching the other. Another alternative would be to incorporate publicity, public relations, and recruitment under one umbrella, the Public Relations and Recruitment Committee. Presently, conflicting and converging demands as a result of multiple role responsibilities interfere with the potential effectiveness and continued growth of the program.

Respectfully Submitted

Helen R. Vaznaian
Assistant to the Dean
School of Home Economics

June 8, 1966

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APPENDIX C

PROGRAM AND POLICY RECOMMENDATION

CONTINUING EDUCATION

There is a real need to provide graduate courses in Home Economics off campus, preferrably on the Boston campus. The Willis Report has recommended that teachers in secondary education acquire a master's degree. We should be providing this type of educational opportunity to home economics secondary school teachers.

To offer more extensive graduate work, we should offer, beginning 1967, graduate courses on the Boston campus. These courses would be for graduate credit and would be transferrable for a degree which would be awarded on the Amherst campus.

Additional courses should be given for the improvement of secondary school teachers in home economics. These courses could be taken for credit but not necessarily toward a degree. These also would be offered on the Boston campus. We should provide leadership in the state for home economics on the higher education level. We have barely begun to do this. There is an urgent need to improve teachers already in service and to provide master's degree work so that secondary school teachers in home economics can obtain a master's degree from the University. Non-credit extension seminars, workshops and courses should be expanded to meet the needs and demands that are constantly being made by the people of the state of Massachusetts.

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PROGRAM AND POLICY RECOMMENDATION

FOOD AND NUTRITION

1. Development of undergraduate field of specialty in Nutrition --- A program entitled "Curriculum in Nutrition" has been proposed by the American Institute of Nutrition working on graduate and undergraduate programs. It is planned to use their proposal as a basis for developing our undergraduate program. In the undergraduate program, Nutrition and Food Science courses account for 6 units only. It is in the graduate program that the individual specializes. We are fortunate that we have available more courses in Food and Nutrition that do some schools that would like to offer undergraduate and graduate training in the field of nutrition.

There is no nutrition laboratory course available either at the undergraduate or the graduate level for students specializing in Food and Nutrition in the School of Home Economics. Dr. Bert and Dr. Reber have discussed the development of such a laboratory course. In this course we would hope to expose the students to some laboratory experiments involving radioisotopes. The equipment needed for this type of experiemental work is expensive and extensive. The amount of equipment needed for teaching such a laboratory projected over the next five years would probably cost about $50,000. It is planned to prepare a request for an equipment grant from National Science Foundation or the Atomic Energy Commission to help purchase the needed laboratory equipment.

2. Development of graduate department of Food and Nutrition --- When Dr. Reber accepted the position in this institution, the administration supported and encouraged him to direct an expansion of the present research in Food and Nutrition and to develop a Master's and Doctoral degree program.

A prerequisite to the development of the graduate program is the departmentalization of the School. We must departmentalize so that we are able to give advanced degrees in specific disciplines. The specific discipline in this case is Foods and Nutrition. Therefore, our graduate curriculum must be entitled, "Foods and Nutrition." A program leading to M.S. and Ph.D. degrees has been suggested by the American Institute of Nutrition. A detailed proposal for the M.S. and Ph.D. degree program in Food and Nutrition has been approved by the appropriate committees in the School of Home Economics.

Probably the most important projection during the next five years is the development of the Ph.D. graduate program. At the present time this is under discussion due to comments about the program which have been made by Dr. Esselen of the Food Science and Technology Department. Clarification of our position will enable us to proceed with budgetary requests. It would be anticipated that we could have added to our available assistantships one research or service assistantship each year.

3. Senior-Clerk Typist position -- in September 1964, I brought with me two contracts from the University of Illinois. At the time there was no secretary and a very minimum of secretarial help available either to the Department or for research publication activities. Therefore, from September 1964 until the end of March 1966, I have used funds to employ a secretary. This secretary did work related to the contracts and departmental work as well. This has been very unsatisfactory. After a great deal of discussion, a secretary was reassigned from the Extension area to Food and Nutrition. There are at present eight full-time staff members depending on a secretary. This is unsatisfactory. There are two projections over the next five years which should be considered. An additional secretary is needed. A second secretary is needed at the present time and the need will increase with time. The other projection is the upgrading of the present secretarial rating to that of a secretary-clerk, senior grade. This should be done at the earliest possible time.

An enumeration of secretarial work would be lengthy and detailed. However, it includes various things such as:

a. Work for Miss Wright (Extension) - typing letters, travel vouchers, monthly reports, and most other general work;

b. Necessary typing involved in application for grants, research activities, and publications;

c. Teaching requirements such as preparation of the exams, laboratory procedures, and reports.

4. Laboratory technician position --- There is a need for a laboratory technician. The work which is being done by the research personnel in the dpeartment is dependent upon support personnel who are paid on an hourly basis. This is an extremely unsatisfactory situation. For example, there is no consistent program for the care of the animal room facilities. The janitor will not do any type of clean up in that room including the floor. We are particularly handicapped at vacation times. It is true that we can compel some graduate students to do this work, but this is just a passable situation. The immediate need is for a person who could do part time work in the animal room and part time work as a laboratory technician.

There are exploratory research activities which are impossible to do with grant money. In order to have a research program function at its peak, we need to carry on such exploratory work. A technician in needed to help do this. Another very important factor is that the amount of time indicated as spent on research is higher than actually is the case. I find the administrative responsibilities of the position I have, take much more time than we had anticipated. I do not object to this. However, it is important that the University does make a positive contribution to research projects. We should not expect the Federal Government to finance them entirely. A research technician would give a great deal more freedom to carry out research than is presently the case.

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PROGRAM AND POLICY RECOMMENDATIONS

HUMAN DEVELOPMENT

The program in Human Development is concerned with the study of substantive and methodological problems related to the analyses of stability and change in human characteristics over the life cycle. The program is interdisciplinary in character and should include persons from the biological and social sciences who are interested primarily in developmental phenomena.

Although a program in Human Development is now available at the M.S. level, a proposal for a Ph.D. program will be initiated in the fall of 1966. The development of the program will require a staff that would include:

A. Specialist(s) in Early Childhood Education
B. Developmental Psychologist(s)
C. Social Psychologist(s) with root disciplines in psychology or sociology
D. Cultural Anthropologist
E. Physical Anthropologist
F. Pediatrician
G. Gerontologist

The purpose of the program broadly stated is to increase the opportunities for specialization in the study of developmental phenomena. Therefore, the program will emphasize coursework in the areas of theory, process and methodology relevant to the study of developmental phenomena. The development of curriculum is anticipated in the following areas:

1. Psychological development
2. Socio-cultural development
3. Political-economic development

The program is intended to help students acquire the competencies necessary for research and teaching in Human Development. This program will require new facilities in addition to those now available in Human Development. These would include:

A. Small groups research laboratory
   This laboratory is required for experimental and observational studies in the development of social interaction <u>over time</u>. Instrumentation required would include an audio-visual control center for manipulation of communication patterns.

B. Developmental assessment laboratory

This laboratory is required for the acquisition of normative data on the development of behavior patterns in infants and children. It would require the instrumentation and equipment usually found in a pediatrics office.

C. A physical anthropology laboratory

This laboratory is required for the assessment of physical growth patterns. It would require instruments for the measurement of physical characteristics such as height and weight as well as Roentgenographic equipment for skeletal measurements of growth phenomena.

D. A neurophysiological laboratory

This laboratory is required for the assessment of biometric changes in response patterns over long periods of time. It would require devices for the measurement of electrodermol and electromyographic phenomena.

Budget Projections

1966 - 1967

Faculty salaries (4)	$ 48,000
Laboratories & equipment	23,700
Assistants	17,940
Other	31,996
	$ 121,636

1967 - 1968

Faculty salaries (4)	$ 50,000
New faculty salaries (2)	24,000
Laboratory & equipment	24,000
Assistants	17,940
Other	31,996
	$ 147,936

1968 - 1969

Faculty salaries (6)	$ 80,000
New faculty salaries (2)	28,000
Laboratory & equipment	24,000
Assistants	17,940
Other	34,000
	$ 183,940

1969 - 1970

Faculty salaries (8)	$ 108,000
New faculty salaries (1)	14,000
Laboratory & equipment	20,000
Assistants	20,000
Other	34,000
	$ 196,000

1970 - 1971

Faculty salaries	$ 143,000
New faculty salaries	
Laboratory & equipment	20,000
Assistants	20,000
Other	34,000
	$ 222,000

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PROGRAM AND POLICY RECOMMENDATIONS

TEXTILES, CLOTHING AND ENVIRONMENTAL ARTS

The Textiles, Clothing and Environmental Arts department must necessarily engage in considerable development in order to meet the needs of undergraduate and graduate students. In addition to an anticipated 10% enrollment increase, there is a real demand by the students for more sections of courses in this area of study. Therefore, additional personnel and facilities are needed.

The development of this department includes establishing a new major program in Interior Design at the undergraduate level. This will require new courses and additional personnel and facilities for carrying on the work of this major.

Beginning in 1967 and continuing in an escalating fashion in 1968 and thereafter will be graduate programs in Clothing and Textiles and in Environmental Arts. This will mean more personnel, facilities and new courses as well as new research activities and all this entails.

By 1968, the new Distributive Education program should be under way. This should be a cooperative program between the School of Education and the School of Home Economics. This will mean an increase in the number of students in the courses that we offer in Fashion Merchandising and therefore more sections of these courses will have to be offered.

It will be necessary to add one new faculty member each year beginning 1966 until five new faculty are added to the present staff.

For all these new developmental activities in this department, additional personnel, facilities, and operating funds are needed over and above that necessary for the nominal 10% increase in budget for this department. This increased activity will continue through 1972 and thereafter.

* * *

PROGRAM AND POLICY RECOMMENDATIONS

MANAGEMENT AND FAMILY ECONOMICS

The Management and Family Economics subject matter area has had a most uneven development at the University of Massachusetts. The Extension program has been strong, with a broad and varied offering in adult education over the state. The undergraduate program has bee limited to service courses, and there has been practically no graduate work or research.

This situation is inconsistent with the heavy demand for graduates, particularly those with a graduate degree, who have a background in management and family economics. Cornell University, which has had an outstanding program in this area for many years, reports that in 1965 there was twice the demand for persons graduating in management and family economics than the year before. The demand for home management and family economics graduates with advanced degrees has always far exceeded the supply. At the present time, there is neither an undergraduate nor graduate major in management and family economics in any School of Home Economics in Massachusetts.

It is proposed that an undergraduate major in Home Management and Family Economics be established, and that the curriculum be directed toward preparing students for a profession as well as give a foundation for graduate work in the subject matter. It is expected that graduates would be prepared for work with adult education, social, and welfare agencies. Certain courses would need to be revised and others added to give the strength needed for a cogent major.

It is further proposed that a graduate program leading to a Master's degree be introduced, with the appropriate courses and research facilities. It is anticipated that many of the first graduate students will be high school teachers, and provisions for summer school participation must be made. Graduate assistantships are necessary in the development of a graduate program.

Research will develop with the graduate program. The three broad areas for investigation as envisioned now are:

a. Theoretical studies to gain further knowledge about the process of management.

b. Consumer behavior in relation to allocation of resources.

c. Practical studies in the development of homemaking skills as a basis for determining both the content and teaching methods for the expanded vocational training program.

To develop the above plans, additional staff is essential. Extension Specialists will contribute toward the teaching of undergraduate and graduate courses, but at least two more faculty members will be needed to supplement the teaching and to advise graduate students in their programs of study and research. One faculty member should have a background of family economics, preferably with a strong consumer economics orientation; the other, in general management of family resources. Secretarial assistance will be necessary for support of the program.

This expanded program will require additional laboratory and research space and facilities as well as office space for staff.

In order to attract students for the proposed undergraduate and graduate programs, well qualified staff and facilities are essential for the development. Increased monies and effort will have to be expanded for a period of at least five years. However, it is believed that after a period of five to eight years, and a graduate program is firmly established, the cost of the program should level off.

* * *

PROGRAM AND POLICY RECOMMENDATIONS

HOME ECONOMICS EDUCATION

Home Economics Education at the secondary school level takes on a new urgency in the need to help both youth and adults expand their capacity to make discriminating use of human and material resources in the face of novel situations without historic parallel. Because the past is not a complete guide to the present and the future, teachers of home economics, as well as other professional staff members, are challenged by the task to educate youth at the secondary school level for adaptability and versatility. All youth need a broad education for the responsibilities of home and community membership, and many will require a specialized secondary education for the development of employable skills. Thus, home economics education at the secondary school level is charged with the specific responsibility to:

A. Educate for homemaking by providing a program of study focused upon

   1. insight and understanding of human growth and development;
   2. management of personal and family resources;
   3. personal and family relationships

In addition, with the passage of the Vocational Education Act of 1963, preparation for youth and adults for gainful employment in occupations using the knowledge and skills of home economics becomes a reality. Of relevance is the fact that the December 1965 issue of the Occupational Outlook Quarterly, based upon Bureau of Labor Statistics, predicts unprecedented growth rate in service oriented occupations such as health, teaching, food preparation, and retailing, for the 1970's. Based upon a broad liberal and professional program of preparation in the School of Home Economics, teachers of home economics education at the secondary school level can and should make a significant contribution to education for homemaking and education for occupational employment.

The Department of Home Economics Education in the School of Home Economics at the University expects the following new developments to occur:

The Undergraduate Program

A significant increase in enrollment is expected to occur due to the unprecedented focus upon the significant contribution which can be made in secondary school programs be teachers of Home Economics in education in implementing for homemaking, for occupational employment, for specialized programs for the disadvantaged. Federal Aid Programs -- the Elementary & Secondary Education Act of 1965, the Urban & Rural Community Action

Programs, Title II, Pt.A, The Vocational Education Act of 1963, The Work-Study Program, Sec. 13 -- will prove highly supportive in the implementation of innovative and imaginative programs at the secondary school level.

In addition, the "phasing out" of the Home Economics Department at Regis College, the internal reorganization at Simmons College as well as the significantly higher cost of education at these aforementioned institutions may be expected to result in an additional increase in our total enrollment. Along with consideration of these factors, we should recognize that our present enrollment in Home Economics Education has tripled within one year. Should we not assume that we will continue to grow beyond the normal expectancy rate of 10% for the next 5 years?

1. The undergraduate curriculum is currently undergoing careful evaluation with a view to becoming more dynamically responsive to the needs of the secondary schools and society.

2. Opportunities for expanding educational experiences will be made possible with an optional affiliation with the Merrill-Palmer Institute in Michigan.

3. The student internship program is carefully being evaluated. We expect to make several significant changes in this area of prime concern.

It is paramount that budget allocations support:

1. the increased travel expenditures essential to student teaching supervision
2. the addition of staff members essential to a program of teaching and supervision
3. the increased cost of additional educational supplies indigenous to Home Economics Education.

Graduate Program

The Willis Report can be expected to have a significant impact upon the expansion of our graduate program at the Master's level. The next five years will be crucial to the establishment of a viable program in Home Economics Education. Personnel, facilities and operating funds are necessary over and above the nominal 10% increase to enable the department to fulfill a role of leadership in Home Economics Education for the state of Massachusetts. Only a program of excellence can hope to make a breakthrough in the decidely "disadvantaged" programs current in the secondary schools of Massachusetts, at the present time. Only a program of excellence can hope to attract graduate students of high calibre;

only a program of excellence can stimulate one's imagination and desire to peruse, discover and contribute to knowledge through research. All are conspicuously absent from the present scene.

Continuing Education

It is expected that:

1. an increase in Consultant Services will occur as school systems expand existing programs in Homemaking and initiate programs in occupational wage-earning aspects of Home Economics Education.

2. an increase in in-service workshops for teachers of Home Economics Education will occur in centers for learning throughout the state of Massachusetts.

3. an increase in innovative interdisciplinary joint demonstration and/or pilot projects will occur:

   a. within the School of Home Economics at the University of Massachusetts

   b. with selected and/or cooperating schools throughout Massachusetts

   c. with industry related to occupational skills and knowledge gained through Home Economics Education

* * *

June 16, 1966

From: Graduate Office, Edward C. Moore, Dean

To: Mr. Robert McCartney, Secretary of the University

Subject: Annual Report, Fiscal 1966

This report covers the areas of activity for which the Graduate Dean is administratively responsible. These are:

a) Graduate Program

b) Research Council

c) University Research Computer Center

d) Computer Science Program

e) The University Press

f) The Water Resources Research Center

g) The Office of Research Services

1) Annual Appropriations: Annual appropriations for these operations in Fiscal 64, 65, and 66 were as follows:

	64	65	66
Graduate School:			
Operating Budget	41,062	59,434	74,110
Research Council			
Faculty Research Grants	50,000	75,000	100,000
Faculty Growth Grants	10,000	10,000	20,000
Massachusetts Review	10,000	10,000	10,000
University Computer Center	41,560	55,509	115,119
Department of Computer Science	13,296	22,342	32,619
University Press	0	60,000	75,000
Water Resources Research Center	0	52,295	87,500
Office of Research Services	27,855	34,993	37,336
TOTAL	193,773	379,573	551,684

2) Personnel

	Sept. 1963	Sept. 1964	Sept. 1965
Graduate School			
Administrative	1	2	3
Clerical	3	6	8
University Computer Center	5	9	14
Department of Computer Science	1	2	4
University Press	0	1	4
Water Resources Center	0	0	2
Office of Research Services	3	3	4
TOTAL	13	23	40

3) Graduate School Organization Chart

See Following Page

GRADUATE SCHOOL ORGANIZATION 1965 - 1966

Edward C. Moore, Dean

Arthur C. Gentile, Asst. Dean

Meredith A. Gonyea, Asst. to the Dean

WATER RESOURCES RESEARCH CENTER

Mr. B. Berger
Director

Mrs. E. Ruddeforth
Secretary

OFFICE OF RESEARCH SERVICES

Mr. G. Good
Glassblower

Mr. L. Williams
Asst. Glassblower

Mr. A. King
Electrician

Mrs. A. Bassignani
Secretariat

UNIV. OF MASSACHUSETTS PRESS

Mrs. L. Barron
Director

Mr. W. Wiljanen
Promotion & Sales

Mrs. B. Ellis
Designer

Miss Williams
Secretary

LIBRARY AUTOMATION PROJECT

Mr. J. Sokoloski
Programmer

Mrs. K. Wysk
Keypuncher

GRADUATE SCHOOL OFFICE

Mrs. Cadigan
Principal Clerk

Miss M. Everson
Admissions

Mrs. D. McHaffie
Admissions

Miss L. Rimbold
EDP Operations

Miss J. Navalany
Miss D. Murley
Admissions Clerks

Miss M. Bilzy
Receptionist

Mrs. Uzdavinis
Research Clerk

Miss L. Wright, Etc.
Clerical Assistant

RESEARCH COMPUTING CENTER

Dr. Caxton Foster
Director

Mr. R. Hambleton
Asst. Director

Mrs. D. Musante
Miss K. Cowles
Programmer

Mr. E. Osbourne
Operations Manager

Mr. F. Mirabello
Mr. T. Sullivan
Mrs. F. Markham
Operations Assistants

Mrs. Y. Kilmek
Miss I. Benoit
Keypunchers

Mrs. I. Gurski
Senior Clerk

Mr. T. Osetek
Physics Programmer

Mrs. J. Woodman
Application Programmer

Miss L. Bovin
Junior Clerk

COMPUTER SCIENCE PROGRAM

Dr. J.A.N.Lee
Director

Mr. J. Goda
Instructor

Mr. S. Rubenstein
Instructor

Miss V. Dihlmann
Junior Clerk

4) Students or clientele served in the various branches of this office are:

a) Graduate School:

Enrollment (fall)	1963	1964	1965
	1303	1849	2240

Admissions Data	1964	1965	1966
Inquiries Received	7,690	11,077	16,300
Applications Processed	3,331	4,633	6,216
Rejected	793	1,350	2,007
Accepted	2,021	3,005	3,593

b) Research Coordinator:

	1964	1965	1966
Faculty Research Grants Processed	82	93	181
Faculty Growth Grants Processed	17	17	36
Sponsored Research Applications Processed	126	188	260
	225	298	477

c) Office of Research Services

	Hours of Use	Number of Departments
Secretariat (3/4 year)	755	19
Electronics Shop	1,055	26
Glass Shop	1,956	23
Woodworking	1,061	10
Machine Shop	2,276	22
Welding	955	18
Total Hours Use	8,058	

5) Publications and Professional Activities:

Edward C. Moore:

a) Represented the University in the formation of the Massachusetts Association for the Marine Sciences and, with Professor Dayton Carritt of M.I.T., was elected co-chairman of the Association.

b) In May of 1966 a member of a panel of the New England Conference on Graduate Education on the subject of cooperative graduate programs.

c) Served as a member of the Executive Committee of the Division of Graduate Work of the National Association of State Universities and Land Grant Colleges, during its terminal year.

d) Elected to the Executive Committee of the New England Conference on Graduate Education for 1966-67.

e) Elected President of the University of Massachusetts chapter of Phi Kappa Phi.

f) Appointed editor of the journal; The Transactions of The Charles S. Peirce Society.

6) Major accomplishments during 1965-66:

a) During the year 1965-66, 467 advanced degrees were given of which 48 were at the doctoral level. The record for the last five years is as follows:

	1962	1963	1964	1965	1966
Doctoral	26	31	27	36	48
Master's	196	176	229	279	419
	222	207	256	315	467

b) New Programs:

The School of Nursing entered the graduate field with its first graduate program: The Master's of Nursing Administration. The School of Home Economics offered its first doctoral program the Ph.D. in Nutrition and Foods.

Six New Ph.D. programs and one new Ed.D. program were added this year. The EdDD now includes "Specialist in Curriculum and Instruction." The fields available for the Ph.D. now include Business Administration, Industrial Engineering, Forestry and Wood Technology, Nutrition and Foods, Wildlife and Fisheries Biology, and Polymer Science and Engineering.

Five new master's programs have been added in Music, Nursing Administration, Nutrition and Foods, Polymer Science and Engineering, and in Veterinary Science. The master's in Landscape Architecture has been rewritten into a two- year program.

c) Graduate School enrollment increased by a figure of 391. Enrollment for the last three years was:

1963	1964	1965
1303	1849	2240

d) With the increased federal and state fellowships, the University fellowship and assistantship picture has materially improved. In 1964-65 only 70 fellowships were available. In 1965-66 207 students were on fellowship support. Of this number 162 were from federal funds, 42 from state funds, and 3 from industrial funds.

e) Research Activity: Calendar year 1965

	Number of Grants	Amount of 1965 Income
External support		
Research grants	181	1,900,922
Training grants	14	186,139
Equipment grants	7	396,666
Facilities grants	5	265,900
Total external	207	2,749,627
University support		
Faculty Research Grants	110	66,906
Faculty Growth Grants	18	18,000
Total internal	128	84,906
GRAND TOTAL	335	2,834,533

f) University Research Computer Center

During the early part of the year the new CDC 3600 computer was in trouble because the air-conditioning system did not work properly. With the help of the physical plant department this problem was solved and use of the computer has increased steadily. By the end of the year use was exceeding 200 hours a month.

Two hundred and forty-six computer projects from 35 academic departments were active at the end of the year.

g) The Computer Science Program served 300 students in 1964, 500 in 1965 and 1200 in 1966. In 1966 approximately 20 graduate students were majoring in Computer Science.

h) The University of Massachusetts Press:

The Press had a very satisfactory year. Six books were in print at the beginning of the year. Ten more were published in 1966. Over 125 manuscripts were considered by the Press in order to select these titles. The Symphonies of Ralph Vaughan Williams was cited by the judges of the New England Book Show for overall excellence. Between Wars, a book of poems by Anne Halley, was selected for an English edition this spring by Oxford University Press. Studies in the Philosophy of Charles Sanders Peirce and The Talkative President were selected by Choice, a publication of the American Library Association, for its list of outstanding academic books of the year.

i) Water Resources Research Center:

The Center obtained its first full-time Director in April of 1966 when Mr. Bernard Berger, formerly of the U.S. Public Health Service, was appointed to that position.

In 1966 the Center was supporting seventeen research projects involving 4 in Civil Engineering, 3 in Geology, 3 in Microbiology, 3 in Aquatic Biology, one in Plant Science, one in Soil Science, 3 in Agricultural Engineering, and one in Chemistry.

In an effort to develop regional cooperation a Council of New England Water Center Directors has been formed of which Mr. Berger has been elected chairman. The Council plans to hold a regional conference on water rights law in November of 1966.

7) Special projects:

For the Graduate School this has been a year of retrenchment and stock-taking. The graduate program of the University has grown very rapidly in the past few years. Since 1961-62 the graduate program has grown from 800 students to 2600 for the fall of '66. The doctoral programs have increased from nine to thirty-two Ph.D. programs and three Ed.D. programs. It was time to review policies and procedures, to adjust them to a new level of operation, to gear them up to a stage appropriate to the larger situation.

An internal review of the Graduate Office procedures has been accomplished. The basic forms used have been re-studied and largely re-written and a great many of the office procedures have been reprogrammed for electronic data processing.

At the policy level, the Graduate Council has reviewed the policies for the admission, retention and graduation of graduate students. The following changes have been made by the council:

1. Admission to the Graduate School in the past required a 2.5 undergraduate cumulative average. The new rule reads "Admission to the Graduate School normally requires an undergraduate grade point average of 2.75 or better. Exceptions may be made to this rule upon recommendation of the major department, providing that the applicant can present other substantial evidence of capacity to do satisfactory graduate work."

   A further change in admissions procedure calls for the Graduate Record Examination to be submitted for application to the Graduate School.

2. In the past students have been dropped from the Graduate School only when a department initiated a recommendation to that effect. A new procedure has been adopted that requires the student to maintain a 2.8 overall cumulative average in all graduate courses in the field of his major.

3. In the past the only graduation requirement has been that no more than two C's were credited toward the degree. This allowed a student to graduate with less than a B average. A new policy has been adopted: "In the grades which a student is offering to satisfy degree requirements, a minimum standard for satisfactory work is a B average."

Under section 18 of Chapter 572 of the 1965 Acts of the Commonwealth (The "Willis Report Act") the University was charged with a responsibility to cooperate in the development of doctoral programs at all state institutions. To implement the provisions of that act a publication, "Standards and Procedures for Doctoral Programs of the University of Massachusetts" was prepared. It was approved by the University Graduate Council and the Board of Trustees. It also received approval of the Lowell Technological Institute, which is the only other state institution currently active at the doctoral level.

In response to a request from Chancellor John Ryan, an arrangement was developed to make possible cooperative Ph.D. programs in Physics and Chemistry at UM/B under essentially the same arrangement as the Four-College Cooperative Ph.D.

A Graduate Student Senate was formed and its constitution was approved by the Board of Trustees. The President of the Student Senate has been added to the membership of the Graduate Council.

8) Future Plans and Needs:

The future plans of the Graduate School include a Graduate Research Center in the Physical Science which may go to construction in January of 1967 and may be completed in 1970. Unfortunate delays, due primarily to a lack of experience on the part of the architectural firm, means that a great many plans predicated on the original completion date of 1967 will have to be dropped.

A portion of one of the new high-rise dormitories in the Southwest Complex has been assigned for graduate student use. One general purpose floor and six residential floors will house 192 unmarried graduate students. It is time for the University to begin to develop married graduate student housing. A proposal is currently being prepared by the Graduate Office for submittal to the Master Planning Committee.

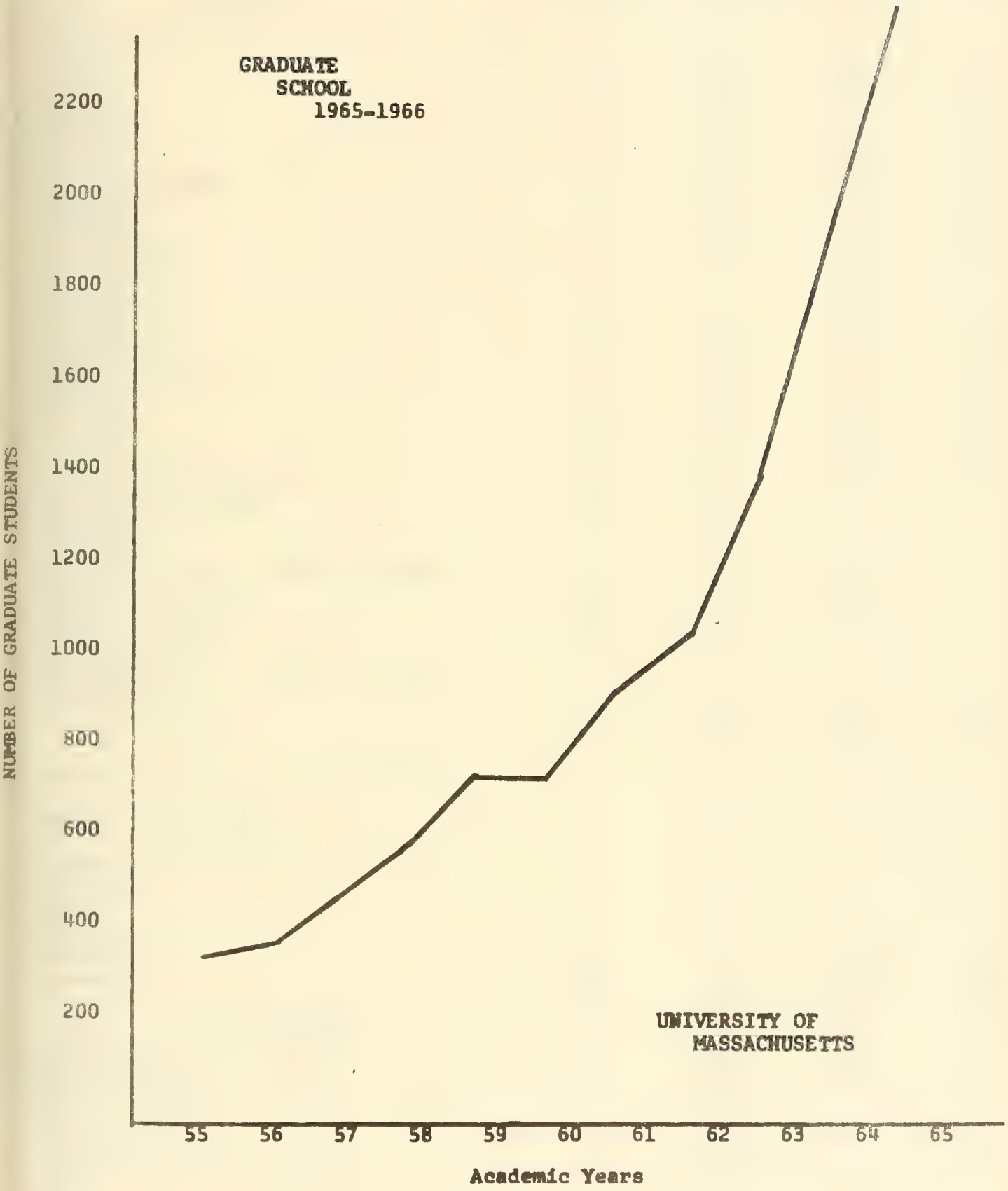
The operation of the Graduate Office has improved greatly this year with the provision of additional staff help and with the added services of Dr. Arthur Gentile as Assistant Dean. Dean Gentile has primary responsibility for the graduate students and their welfare and for the research coordinator functions of the Graduate Office.

At the end of the year a program in Polymer Science and Engineering was being launched. Administrative responsibilities for this inter-disciplinary program has been assigned to the Graduate Dean. Possible new programs for next year may include genetics and marine biology. The commitment to a State Geological Survey is also under review. Development of an inter-disciplinary graduate program in Resource Planning and Development will continue to be discussed next year. Efforts by Dean Gentile to establish a cobalt radiation source on campus have matured with the approval of the Atomic Energy Commission for financial support for the radiation source. NIH support is currently being requested. The staff of the Computer Center is working on plans for a remote inquiry system in

connection with the CDC 3600 computer and at year's end a proposal had been submitted to NSF for hardware support. Efforts to further atuomate the University Library procedures have moved very slowly this year because of inability to obtain competent computer people interested in taking on a library project. Plans to develop a handbook for graduate faculty and a handbook for graduate students were begun this year but were not completed. It is hoped they will be completed next year.

The Graduate Council sponsored a "Seminar on College Teaching as a Career." Although the seminar was not for credit, a notation was made on the records of all students who attended five out of six of the meetings. Seventy students received such notations.

Noteworthy honors accruing to the branches of the graduate office were the appointment by Governor John Volpe of Mr. Bernard Berger as a member of the State Public Health Council and the election of the University of Massachusetts Press to the Association of American University Presses.


GRADUATE
SCHOOL
1965-1966
NUMBER OF GRADUATE STUDENTS
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
UNIVERSITY OF
MASSACHUSETTS
55
56
57
58
59
60
61
62
63
64
65
Academic Years

GRADUATE SCHOOL ENROLLMENT

Department	Fall 62	Fall 63	Fall 64	Fall 65
COLLEGE OF ARTS AND SCIENCES				
Art	4	7	28	47
Botany	16	15	23	27
Chemistry	70	118	154	149
Economics	16	25	44	51
English	41	78	119	148
Geology	15	20	22	35
German-Russian	19	21	25	46
Government	69	73	74	65
History	29	34	66	85
Mathematics	21	32	35	63
Microbiology	9	16	16	25
Philosophy	6	7	15	29
Physics	20	21	26	58
Psychology	62	63	97	118
Romance Language	14	13	29	47
Sociology	25	25	41	53
Speech	9	16	25	24
Zoology	49	48	65	61
	495	632	904	1131
COLLEGE OF AGRICULTURE				
Agric. & Food Econ.	30	22	25	35
Agric. Engr.	12	10	16	19
Agronomy	4	3	--	--
Dairy & An. Sci. (Poultry Science)	9	10	11	27
Entom. & Pl. Path.	14	16	20	22
Food Sci. & Tech.	21	18	35	45
For. & Wildlife	12	23	43	46
Horticulture	4	4	--	--
Plant & Soil Sci. (Hort. & Agron.)	--	--	12	24
Poultry Science	7	3	7	--
	117	120	184	240
SCHOOL OF BUSINESS ADMINISTRATION	38	51	80	86
SCHOOL OF EDUCATION	197	223	457	498
SCHOOL OF ENGINEERING				
Chemical	20	28	46	39
Civil	9	17	23	38
Electrical	8	12	16	21
Mechanical	11	12	16	10
Industrial	0	3	11	22
	48	72	112	130
SCHOOL OF HOME ECONOMICS	6	6	10	18
SCHOOL OF PHYS. EDUCATION	0	18	13	28
UNCLASSIFIED	0	130	22	11
PUBLIC HEALTH	12	8	17	17
STATISTICS	--	--	5	17
PITTSFIELD	62	43	42	42
COMPUTER SCIENCE	--	--	--	17
LABOR	--	--	--	5
GRAND TOTAL	975	1303	1846	2240

GRADUATE SCHOOL ENROLLMENT
Head Count and Full Time Equivalent

	Total Student Count	Converted to Full Time Equivalent
COLLEGE OF ARTS AND SCIENCES		
Art	47	39
Botany	27	24
Chemistry	149	145
Economics	51	44
English	148	113
Geology	35	33
German-Russian	46	38
Government	65	56
History	85	66
Mathematics	63	59
Microbiology	25	23
Philosophy	29	26
Physics	58	54
Psychology	118	111
Romance Languages-French	33	25
Spanish	14	9
Sociology & Anthropology	53	44
Speech	24	19
Zoology	61	59
	1131	987
COLLEGE OF AGRICULTURE		
Agric. & Food Economics	35	23
Agric. Engineering	19	16
Entomology & Plant Path.	22	20
Food Science & Technology	45	41
Forestry, Wildlife & Fisheries	46	42
Landscape Architecture	22	18
Plant & Soil Science	24	20
Veterinary & Animal Science	27	24
	240	204
SCHOOL OF BUSINESS ADMINISTRATION	113	93
Accounting	15	14
	128	107
SCHOOL OF EDUCATION	498	299
SCHOOL OF ENGINEERING		
Chemical	39	29
Civil	38	30
Electrical	21	17
Industrial	10	8
Mechanical	22	17
	130	101
SCHOOL OF HOME ECONOMICS	18	14
SCHOOL OF PHYSICAL EDUCATION		
Men	21	19
Women	7	7
	28	26
PUBLIC HEALTH	17	14
INTERDISCIPLINARY		
Computer Science	17	6
Labor Relations	5	5
Statistics	17	14
Other	11	5
GRAND TOTAL	2240	1782

GRADUATE SCHOOL STUDENT STATISTICS
Fall 1965

	Of 1450 Full Time Students	Of 790 Part Time Students	Of 2240 Total Students
Sex:			
Male	1146	504	1650
Female	304	286	590
Marital Status:			
Married	472	515	1003
Single	981	260	1237
Residence:			
Massachusetts	687	637	1324
Out of State	573	103	676
Foreign	190	50	240
Level:			
Beginning	1069	570	1639
Intermediate	355	210	565
Advanced	26	10	36
Class:			
Master's	840	301	1141
Doctor's	400	152	552
Provisional	88	22	110
*Teacher's Certificate	13	12	25
CAGS	3	16	19
*Unclassified	106	283	389

GRADUATE SCHOOL DEGREE STUDENTS
FALL 1965

Department	Students	Average Undergrad GPA
Spanish	13	3.10
Mathematics	57	3.05
Women's Physical Education	7	3.01
Psychology	108	3.00
German	36	2.99
Philosophy	27	2.96
Finance	2	2.95
French	28	2.93
Zoology	51	2.92
Statistics	15	2.91
Sociology	45	2.89
Chemical Engineering	33	2.88
Wildlife	10	2.88
Anthropology	3	2.87
English	121	2.85
Microbiology	20	2.85
Food Technology	41	2.84
Art	36	2.80
Labor	5	2.80
Government	59	2.78
Home Economics	12	2.78
Men's Physical Education	18	2.74
Physics	50	2.73
Education	350	2.72
Botany	23	2.70
School of Business Administration	108	2.70
Chemistry	127	2.69
History	66	2.69
Economics	44	2.67
Biology	3	2.65
Agricultural Engineering	24	2.62
Public Health	10	2.62
Accounting	15	2.61
Geology	31	2.61
Industrial Engineering	9	2.61
Agricultural Engineering	17	2.60
Landscape Architecture	20	2.56
Plant & Soil Science	17	2.56
Computer Science	5	2.55
Fisheries Biology	9	2.54
Electrical Engineering	19	2.53
Speech	21	2.52
Japanese	1	2.50
Animal Science	21	2.42
Entomology	14	2.41
Forestry	14	2.41
Mechanical Engineering	16	2.41
Civil Engineering	37	2.35
Plant Pathology	4	2.33
GRAND TOTAL	1822	2.76

GRADUATE ASSISTANT AND FELLOW DATA
AS OF DECEMBER 12, 1965

Department	Students	Undergrad QPA
Philosophy	14	3.39
Mathematics	36	3.17
Food Science	13	3.16
Romance Language	28	3.15
German	23	3.11
Computer Science	3	3.07
Psychology	71	3.02
English	59	3.00
History	17	2.98
Sociology	35	2.93
Zoology	53	2.88
Chemical Engineering	20	2.84
Government	37	2.83
Microbiology	20	2.82
School of Business Administration	21	2.81
Physics	44	2.79
Plant & Soil Science	14	2.76
Statistics	7	2.75
Botany	17	2.74
Physical Education	22	2.74
Education	19	2.73
Art	21	2.72
Economics	10	2.72
Chemistry	117	2.71
Home Economics	8	2.71
Agricultural Engineering	17	2.68
Geology	24	2.65
Agricultural & Food Economics	11	2.62
Environmental Science	3	2.62
Forestry	22	2.61
Veterinary Science	13	2.59
Labor Relations	5	2.58
Food Technology	19	2.56
Landscape Architecture	3	2.56
Electrical Engineering	10	2.55
Geology	2	2.52
Civil Engineering	13	2.49
Industrial Engineering	4	2.47
Mechanical Engineering	8	2.45
Public Health	7	2.45
Speech	10	2.44
4-H	2	2.41
Entomology	14	2.36
GRAND TOTAL	916	2.83

GRADUATE FELLOWSHIP HOLDERS SUMMARY

Department	Students	Undergrad GPA
Art	2	3.50
History	2	3.46
Mathematics	2	3.45
Philosophy	10	3.40
English	14	3.29
Romance Language	13	3.28
Sociology	15	3.24
Industrial Engineering	1	3.21
Food Science	6	3.20
German	8	3.13
Education	2	3.12
Botany	4	3.08
Physics	10	3.03
Psychology	29	3.03
Geology	5	3.01
Zoology	10	2.98
Food Technology	2	2.97
Entomology	1	2.91
Mechanical Engineering	1	2.83
Chemical Engineering	7	2.80
Chemistry	16	2.79
Microbiology	4	2.74
Agricultural Engineering	4	2.72
Statistics	1	2.68
Economics	2	2.66
Forestry	10	2.58
Labor Relations	5	2.58
Civil Engineering	6	2.57
Government	10	2.57
Speech	4	2.57
Home Economics	1	2.56
GRAND TOTAL	207	3.00

GRADUATE ASSISTANTS (TEACHING) SUMMARY

Department	Students	Undergrad QPA
Philosophy	4	3.36
Mathematics	34	3.14
Psychology	22	3.11
German	15	3.10
School of Business Administration	4	3.08
History	8	3.05
Forestry	1	3.00
Romance Language	14	3.00
Microbiology	9	2.94
English	43	2.93
Government	27	2.93
Zoology	38	2.88
Computer Science	1	2.84
Art	4	2.83
Economics	7	2.81
Physical Education	16	2.78
Physics	28	2.70
Chemistry	57	2.68
Landscape Architecture	1	2.68
Chemical Engineering	6	2.67
Sociology	18	2.67
Geology	12	2.63
Botany	11	2.58
Education	7	2.58
Electrical Engineering	10	2.55
Civil Engineering	6	2.52
Geography	2	2.52
Home Economics	2	2.44
Public Health	2	2.44
Mechanical Engineering	7	2.40
Speech	3	2.33
Entomology	4	2.27
GRAND TOTAL	423	2.83

GRADUATE ASSISTANTS (RESEARCH) SUMMARY

Department	Students	Undergrad QPA
Forestry	3	3.40
School of Business Administration	3	3.22
Agricultural Engineering	1	3.14
Food Science	3	3.08
Chemical Engineering	6	3.06
Psychology	17	2.95
Sociology	2	2.92
Botany	2	2.84
Home Economics	4	2.84
Physics	6	2.81
Chemistry	40	2.71
Microbiology	7	2.71
Education	1	2.68
Plant & Soil Science	2	2.67
Zoology	5	2.66
Food Technology	9	2.63
Entomology	1	2.60
Agricultural & Food Economics	2	2.47
English	1	2.44
Geology	4	2.42
Environmental Science	1	2.26
Industrial Engineering	3	2.10
Public Health	1	1.99
Civil Engineering	1	1.90
GRAND TOTAL	125	2.76

GRADUATE ASSISTANTS (SERVICE) SUMMARY ANALYSIS

Department	Students	Undergrad GPA
Computer Science	2	3.30
Food Science	4	3.11
Romance Language	1	2.92
Chemical Engineering	1	2.84
Education	8	2.83
Psychology	3	2.81
Environmental Science	2	2.80
History	7	2.78
Plant & Soil Science	12	2.76
Statistics	6	2.76
Chemistry	4	2.71
Agricultural & Food Economics	9	2.67
Agricultural Engineering	12	2.64
School of Business Administration	14	2.63
Physical Education	6	2.60
Veterinary Science	13	2.59
Art	15	2.57
Public Health	4	2.57
English	1	2.50
Forestry	8	2.50
Economics	1	2.48
Landscape Architecture	2	2.44
Food Technology	8	2.42
4-H	2	2.41
Speech	3	2.39
Geology	3	2.37
Education	1	2.32
Entomology	8	2.27
Home Economics	8	1.99
GRAND TOTAL	161	2.62

GRADUATE ASSISTANTS & FELLOWS SUPPORT AMOUNTS

	Number of Students with $2000 or over	Number of Students below $2000	Number of Students with no support	Total Number of Degree Students
COLLEGE OF ARTS AND SCIENCES				
Art	4	17	15	36
Botany	17	--	6	23
Chemistry	76	41	10	127
Economics	9	1	34	44
English	39	20	62	121
Geology	14	10	7	31
German-Russian	21	2	13	36
Government	20	17	22	59
History	9	8	49	66
Mathematics	26	10	21	57
Microbiology	15	5	0	20
Philosophy	11	3	13	27
Physics	35	9	6	50
Psychology	58	13	37	108
Romance Languages-French	28	1	12	28
Spanish	--	--	--	13
Sociology & Anthropology	27	8	13	48
Speech	10	--	11	21
Zoology	50	3	--	53
COLLEGE OF AGRICULTURE				
Agric. & Food Economics	11	--	13	24
Agric. Engineering	11	6	--	17
Entomology & Plant Path.	11	3	4	18
Food Science & Technology	27	5	9	41
Forestry, Wildlife & Fisheries	16	6	11	33
Landscape Architecture	--	3	17	20
Plant & Soil Science	13	1	3	17
Veterinary & Animal Science	8	5	8	21
SCHOOL OF BUSINESS ADMINISTRATION	8	13	87	108
Accounting	--	--	15	15
SCHOOL OF EDUCATION	13	6	331	350
SCHOOL OF ENGINEERING				
Chemical	12	8	13	33
Civil	9	4	24	37
Electrical	10	--	9	19
Industrial	1	3	5	9
Mechanical	8	--	8	16
SCHOOL OF HOME ECONOMICS	2	6	6	14
SCHOOL OF PHYSICAL EDUCATION				
Men	22	--	3	18
Women	--	--	--	7
PUBLIC HEALTH	--	7	3	10
INTERDISCIPLINARY				
Computer Science	3	--	2	5
Labor Relations	5	--	--	5
Statistics	3	4	8	15
Other	2	--	--	2
GRAND TOTAL	664	248	910	1822

FOREIGN STUDENTS
Fall 1965

	Number of Students		
	Full Time	Part Time	Total
Arts & Sciences	105	22	127
Agriculture	37	18	55
Business	6	2	8
Education	5	0	5
Engineering	22	5	27
Home Economics	4	1	5
Physical Education	1	0	1
Interdisciplinary	9	2	11
TOTAL	190	50	240

THE UNIVERSITY OF MASSACHUSETTS PRESS

REPORT * 1965-66

1. Appropriations

1963-64	$12,000
1964-65	40,850
1965-66	75,000

2. Personnel, number in each rank

September 1963	1 - Director
September 1964	1 - Director
September 1965	1 - Director
	1 - Production & Design
	1 - Sales and Promotion
	1 - Secretary
	1/2- Shipping
	1/2- Editorial Assistant

3. Table of Organization

Graduate Dean: Edward C. Moore
Press Committee: Howard H. Quint, Chairman

Press Staff:
Director: Leone A. Barron
Production & Design: Barbara Ellis
Sales & Promotion: William Wiljanen
Secretary: Lillian Williams
Editorial Assistant: Bernadette Small
Shipping: Richard Scully

4. Clientele Served

The Press has several kinds of customers: the wholesale and retail book trade, and individuals and libraries. Accounts are now regularly served in the fifty states, the British Commonwealth, the Netherlands, Scandinavia, and Japan.

5. --

6. Accomplishments

Six books and one journal were already in print by July 1965; ten more, with two issues of the Transactions,

have since been published. In terms of size of staff, this is a substantial accomplishment. Wesleyan University Press, for example, also a new press, published fifteen titles this year with eight full-time employees.

1965-66 list:

1.	Come Out Into The Sun: Poems New and Selected	Robert Francis	November 1965
2.	Urbanization of Japanese Labor, 1868-1955	Thomas O. Wilkinson	December 1965
3.	Between Wars and Other Poems	Anne Halley	December 1965
4.	The Lyman Letters: New Light on Emily Dickinson and Her Family	Richard B. Sewall	January 1966
5.	Thoreau In Our Season	Edited by John H. Hicks	March 1966
6.	Dialectics and Nihilism: Essays on Lessing, Nietzsche, Mann, and Kafka	Peter Heller	May 1966
7.	The Rhetoric of Tragedy: Form In Stuart Drama	Charles O. McDonald	June 1966
8.	Max Weber's Political Ideas In The Perspective Of Our Time	Karl Löwenstein	June 1966
9.	Socialism and The Workers In Massachusetts, 1886-1912	Henry F. Bedford	July 1966
10.	Jean Giraudoux, The Theatre Of Victory and Defeat	Agnes G. Raymond	June 1966

11-12 Transactions Of The Charles S. Peirce Society, Volume: I,ii; II,i

Remaining in production:

Check List Of The Publications Of Thomas Bird Mosher of Portland, Maine	Compiled by Benton L. Hatch	Fall 1966

During the year, over 125 manuscripts and projects were submitted to the Press for consideration. The Press Committee approved for publication the following manuscripts, which are now in editorial or production and design phases:

Maurice Baxter: Daniel Webster and the Supreme Court
William T. Scott: Erwin Schrodinger: Nature and the Self
William Sheldon: The American Woodcock
Maurice Golden: Fielding's Moral Psychology
David R. Clark: Monographs of Yeats' Plays
John A. Scott: The Defense of Gracchus Babeuf

Several Press publications received special attention during the past year:

Between Wars - featured in Books; selected for an English edition this spring by Oxford University Press
The Symphonies of Ralph Vaughan Williams - a Publisher's Choice selection, cited by the judges of the New England Book Show for over-all excellence
Studies in the Philosophy of Charles Sanders Peirce and The Talkative President - selected by Choice for its list of Outstanding Academic Books of the Year

The sales record of the last year is beginning to be encouraging, accounts payable averaging $1300 a month. Next year's billings can be expected to exceed this average, since each month the Press is better and more widely known, and the titles in print at that time will be the core of a fine backlist. Next year's sales will be boosted also by having personal represetation in the trade. Automated sales analysis and record keeping are in initial stages of planning. Promotion and advertising during the year publicized primarily the existence of a new house to the trade and reading public. Advertisements were written, designed, produced, and scheduled in the following:

New York Times Sunday Book Section
New York Herald Tribune Book Week
New York Review of Books
American Historical Review
American Sociologist
American Sociological Review
Political Science Quarterly
Massachusetts Review
American Anthropologist
Journal of Asian Studies
Boston Globe
Yale Review
Poetry
Amherst Record
The American Scholar
Library Journal
Fact
PMLA
Journal of Philosophy

The accomplishments listed above represent the combined efforts of the Committee, which approves publication and establishes policy; of the staff; and above all of the Press authors.

7.

8. Needs:

Office and Warehouse space

A single room in Munson houses six staff members and business associates. A handicapping situation. The staff looks forward to moving into quarters to be provided in the new Graduate Center.

The attic in Munson houses the maximum load of books; a room in the Annex, recently assigned to the Press, temporarily postpones the inevitable need for a warehouse with shipping facilities.

Equipment

The list submitted several months ago, at Mr. Gentile's request, for Press Office equipment in new Graduate Center, covers major needs of next few years. Until office facilities are improved, acquisitions of new equipment will perforce be limited to items such as a typewriter and flat file, and miscellaneous small items.

Personnel

During the year, salaries of the present staff members were, happily, improved, and a new position, that of sales manager, created. At present three full-time employees share the major activities of a press: directing, editing, producing, designing, promoting, advertising, etc. In time, and even without a substantial increase in number of titles printed per year, the editorial function should be largely separated from that of directing; production and design, now over-burdened, should involve the help of an assistant; and proofreading, now done on a free lance basis, should be in the hands of a crackerjack, if part-time, Press employee.

Author-Publisher agreement

For two years, the Press has operated without such an

agreement. Since this agreement defines the rights and responsibilities of each party, it is essential to businesslike and equitable publishing. Its approval by the administration is urgently requested.

From: Water Resources Research Center Date: May 31, 1966

To: Dean Edward C. Moore

Subject: Annual Report for 1965 - 66.

1. Appropriation:

Year	Amount
1963-64	0
1964-65	$52,297.29
1965-66	$87,500.00

These appropriations represent the funds allotted to this program by the Office of Water Resources Research of the Department of Interior. An estimated equal amount was contributed by the University in terms of salaries of principal investigators and services.

2. Personnel:

Date	Professional	Non-Professional
September, 1963	0	0
September, 1964	0	0
September, 1965	1	1

In addition to the above, the Center pays the wages of 7 graduate assistants, 9 student laborers, and 3 non-professionals, all of whom are employed on the research projects.

3. Organization Chart:

Director
|
|
Secretary

4. Students or Clientele Served:

Items a. and b. are not directly applicable at this time.

c. The Water Resources Research Center supports 16 students -- 7 as graduate assistants and 9 as student laborers.

5. Professional Activities:

a. Seventeen projects were supported by Water Resources Research Center grants.

b. These projects involved 5.0 man-years of research planning and services by the Director and Principal Investigators.

c. These projects included two conferences for which the Center was co-sponsor:

Municipal Watershed Management Symposium, November 9-10, 1965.

This Land of Massachusetts: A Conference on Economic Geology, January 24, 25, and 26, 1966.

d. Publications Record

The publications record on June 30 is as follows:

Number of papers published ---------- None

Number of papers submitted for publication -- 9

Number of papers in preparation ---------- 3

The following table shows the record by project:

Project	Number Published	Number Presented	Number in Preparation
WR-1	0	0	0
WR-2	0	0	0
WR-3	0	0	0
WR-4	0	0	0
WR-5	0	0	0
WR-6	0	0	0
WR-7	0	0	0
WR-8	0	0	0
WR-9	0	2	0
WR-10	0	5	0
WR-11	0	0	1
WR-12	0	0	0
WR-13	0	1	0
WR-14	0	0	1
WR-15	0	0	0
WR-16	0	1	1
WR-17	0	0	0

6. Major Accomplishments:

These projects involved 9 University Departments. The principal investigators included 4 civil engineers, 3 geologists, 3 microbiologists, 3 aquatic biologists, one plant scientist, one soils scientist, 3 agricultural engineers, and one chemist.

The 7 student assistants included 2 in agricultural engineering and one in each of the following disciplines: chemistry, civil engineering, zoology, aquatic biology, and soils science.

The 9 student laborers included 4 in civil engineering, 4 in aquatic biology, and one in mathematics.

Since the program was set up only a little more than a year ago, it can be stated that a good start has been made in focusing the University's intellectual resource on problems of water resources research. A permanent Director of the Water Resources Research Center came on duty in April of 1966.

7. Special Projects or Programs:

A start has been made in setting up regional research studies in New England in which the six Water Resources Research Centers will cooperate. To advance this

effort, as well as to provide a means of pooling experience in program management, the Directors have formed the Council of New England Water Center Directors. The Council plans to hold a conference on water rights law in November, 1966. The objective here will be to clarify problems and research needs in this area.

8. Future Plans:

The Water Resources Research Center can fill a valuable function as the focus of water resources research planning, initiation, and coordination in the Commonwealth. It is planned that a core intra-mural research program be supplemented by cooperative projects with other universities and agencies. To this end it is proposed that an archive of water resources research documents important to Massachusetts be established and that an inventory and regularly issued newsletter on research under way in the Commonwealth be established. It is further proposed that a continuing relationship be developed with federal, state and local agencies, other universities, industry, consulting groups, and lay organizations for the purpose of effective communication on matters of common interest, including early identification of research needs. The development of this program will be accelerated in fiscal year 1967 and will require the use of additional personnel, equipment and facilities as follows:

a. One additional full-time clerk-stenographer

b. Desk, chair and typewriter for the clerk-stenographer

c. It is estimated that 400 square feet of floor area is needed to serve this program in fiscal year 1967. At the present time, we have about 275 square feet.

As a focus of water resources research intelligence in the Commonwealth, the Center will have a growing responsibility for evaluating research in terms of the needs of the Commonwealth. Such evaluations must consider economic, social, legal and institutional factors as well as hydrological, engineering and scientific aspects. It is proposed therefore, that the Center staff be supplemented in fiscal year 1968 by an economist or social scientist who will be able to carry on this phase of the Center's program. The success of the Center's efforts will be measurable not only in new knowledge resulting from research. It will also be expressed in strengthening of water resources-related courses and training of students from diverse disciplinary backgrounds for work in the water resources fields. The development of a long-range plan for this phase of the Center's program will be an important activity in FY 1967.

RESEARCH COMPUTING CENTER

ANNUAL REPORT
1966

INTRODUCTION

The installation in early 1965 of the Control Data 3600 system, one of the most powerful computers available, represented a significant step by the University toward its goal of becoming one of the country's major institutions for learning and research. With the new equipment there were new dimensions added to the capabilities and the problems of the Research Computing Center. The IBM 1620 remained in full service to the University community which it had served for four years. While continuing operations on the 1620, it was necessary for the staff to learn new equipment and its associated software systems, and to aid the Center's users in converting their programs to take advantage of the newer, more powerful systems. The Center staff was aided in this transition by Control Data systems specialists who insured the proper functioning of the hardware and software systems, and provided training in these systems for the Center staff and various users. At the end of this first year of 3600 availability, approximately 80% of the Center's computing work load is run on the 3600 system.

The progress made toward development of the Research Computing Center into a distinguished computational facility is encouraging but the job has hardly been started. Currently, use of the 3600 does not vary markedly from the patterns evolved for the much smaller 1620, except that a higher volume of jobs are run, some of which require the larger memory and more powerful instruction set available on the 3600.

The effectiveness of a major computing center is measured not so much by its available computing power as it is by the uses, and the efficiency of the usage, to which the computing power is applied. Those centers which are ranked foremost have made significant contributions to the advancement of the computing sciences. Their contributions have included innovations or refinements in the area of computing techniques and facilities which have advanced the use of computers as a tool for research in other disciplines; or they have represented a furtherance of the state of the art (or technology) of computer systems design, access, or usage. Such endeavors are especially appropriate to university computing centers.

The acquisition of a first-class computer provides the Research Computing Center with the potential to achieve a ranking place among computing centers. The achievement of that status is a goal which should dominate our planning. Progress toward that goal can only enhance the value of the Center to the University community, as its services improve and expand.

The coming year is a critical one in which the direction for the future will be charted. The Center must not stall at its current state of development, nor does it appear that it will. The University-wide interest in the UMASS remote access system indicates strong support for the continued expansion and improvement of our total computing capabilities. The limiting factors in this growth will, it appears, be economic. The sine qua non of progress is people; we must attract and hold a highly qualified professional staff to provide the continuity, direction and

technical competence necessary to the continued betterment of the Center in its service to the University and the 4-college community. A survey of other university computing centers who have 3600's, taken in March 1966, indicates how minimal the Research Computing Center's current resources are.

Breakdown of Staff by Type at
University 3600 Installations

Place	Admin.	Programmers	Operation	Staff Total	Half time Students	Full time Equiv.
Indiana	2	12	11	25	7	28 1/2
Cal., S.Diego	1	5	17	23	5	25 1/2
Mich. S.U.	2	10	28	40	22	51
Wisc.	3	33	29	65	15	72 1/2
Mass.	2	2	8	12	5	14 1/2
Average	2	12.4	18.6	33.0	10.8	38.4

Highest priority must be given to augmenting the Center's programming staff with capable systems and applications programmers. It will also become increasingly difficult to meet expanding operational requirements without additional operations staff. A reasonable minimum growth pattern which should be achieved is:

Year	Admin.	Programmers	Operations	Total	Half time Students	Full time Equiv.
1965-66	2	2	8	12	5	14.5
1966-67	3	4	14	20	5	22.5
1967-68	3	12	15	30	8	34.0

Breakdown of Mass/68 by Title

Operations	Programming
1 - Operations Manager	1 - Librarian
2 - Maintenance Engineers	2 - Consultants
2 - Keypunchers	4 - Maintenance (System polishers)
2 - Secretaries	5 - Development (UMASS Mod 2)
2 - PBX Operators	
6 - Machine Operators	

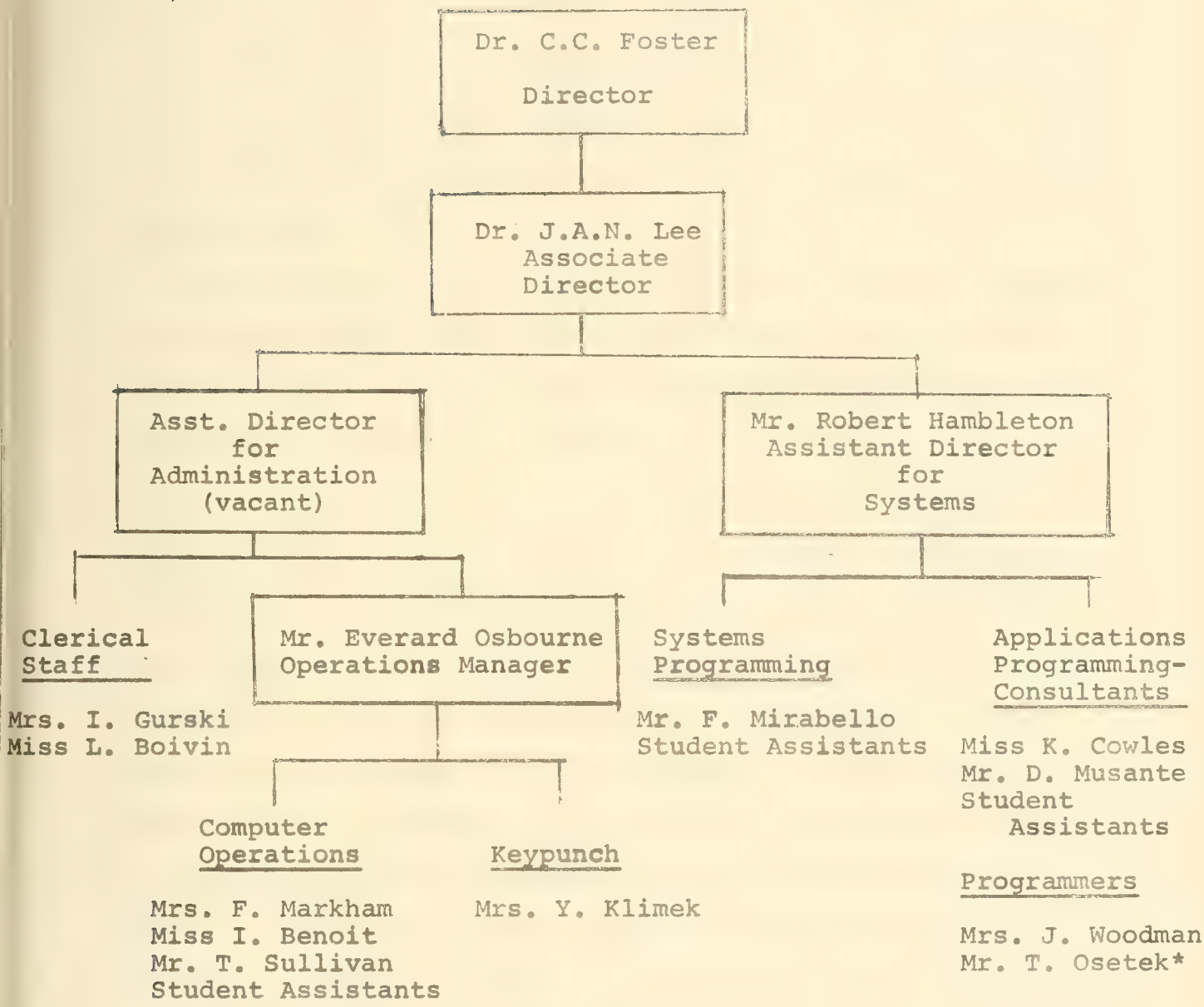
The University has established the Center with a major computing system. It is our intention to match that excellence in hardware with a corresponding excellence in our capabilities for service to our community of users.

ORGANIZATION AND STAFF

The Center is organized under the Dean of the Graduate School and Coordinator of Research, Dr. Edward C. Moore, with the administration of the Center being the direct responsibility of the Director, Dr. Caxton C. Foster, Associate Professor of Computer Science, who executes the policy formulated by the University Computer Committee under the chairmanship of Dr. Gail Oakland.

The Staff organization is depicted in Figure 2.1. Fifteen full time positions, six half-time student positions, and a part-time Associate Director's position were authorized for 1965-66. Of these, all but one full time position were filled. Two of the programming positions are dedicated full-time to other departments, and cannot be used in direct support of Center needs.

STAFF ORGANIZATION



*Contracted to research projects

Figure 2.1

1965-66 MAJOR EVENTS

A. Control Data 3600 Operations

During this year the Control Data 3600 assumed the major burden of the Center's computing workload. Programming aid and computer time were offered to users free of charge to aid them in conversion of all but the "hard core" 1620 programs to the 3600. The majority of this work was completed by the end of calendar 1965.

Considerable difficulty was experienced with environment control equipment in the 3600 machine room throughout 1965. Continued efforts by the vendor (Hampshire Engineering) were only partly successful in correcting the difficulties. It appears that at least part of the problem is traceable to incomplete specifications provided the vendor. The advent of cold weather aggravated the problem until in December, the minimum environmental requirements could not be met. The result was a total suspension of 3600 operations while a Chrysler unit provided by the University's Physical Plant department was installed. This unit has functioned as the primary environmental control since its installation in February 1966, while improvements were made to the originally contracted system. Currently, both systems appear to operate satisfactorily, though the Chrysler unit is far more reliable. Plans call for the installation of another Chrysler unit for backup.

At the beginning of the second semester, the basic programming

course of the Computer Science Program abandoned use of the 1620 and began use of the 3600. 3600 usage has progressed to three shifts of operation. Closed shop and open shop periods alternate throughout the shifts, with five closed shop runs during the prime hours. Two of the three shifts are manned by full-time staff and the remaining shift is manned by student help. This arrangement has been in effect throughout the Spring 1966 semester.

Figure 3.1 indicates the hours of usage by month. Note that in March the Basic Programming problems added significantly to the hours used. Figure 3.2 indicates the total number of jobs processed each month.

B. Acquisition of LGP-30

An LGP-30 computer system with Flexowriter input and output was acquired by the Center at no cost to the University in April 1966.

C. Software and Services

Software efforts have largely been directed toward the 3600. Significant accomplishments have been:

1. Adaption of "Fast FORTRAN" obtained from Michigan State University, to our system for use in Computer Science course work. This system operates five to ten times as fast on student jobs as does the manufacturer-supplied FORTRAN system. Work on Fast FORTRAN was completed in time for its use by students for the Spring semester.
2. Design and implementation of an automated computer time and services accounting and billing system. The complete system

HOURS USED

CDC-3600

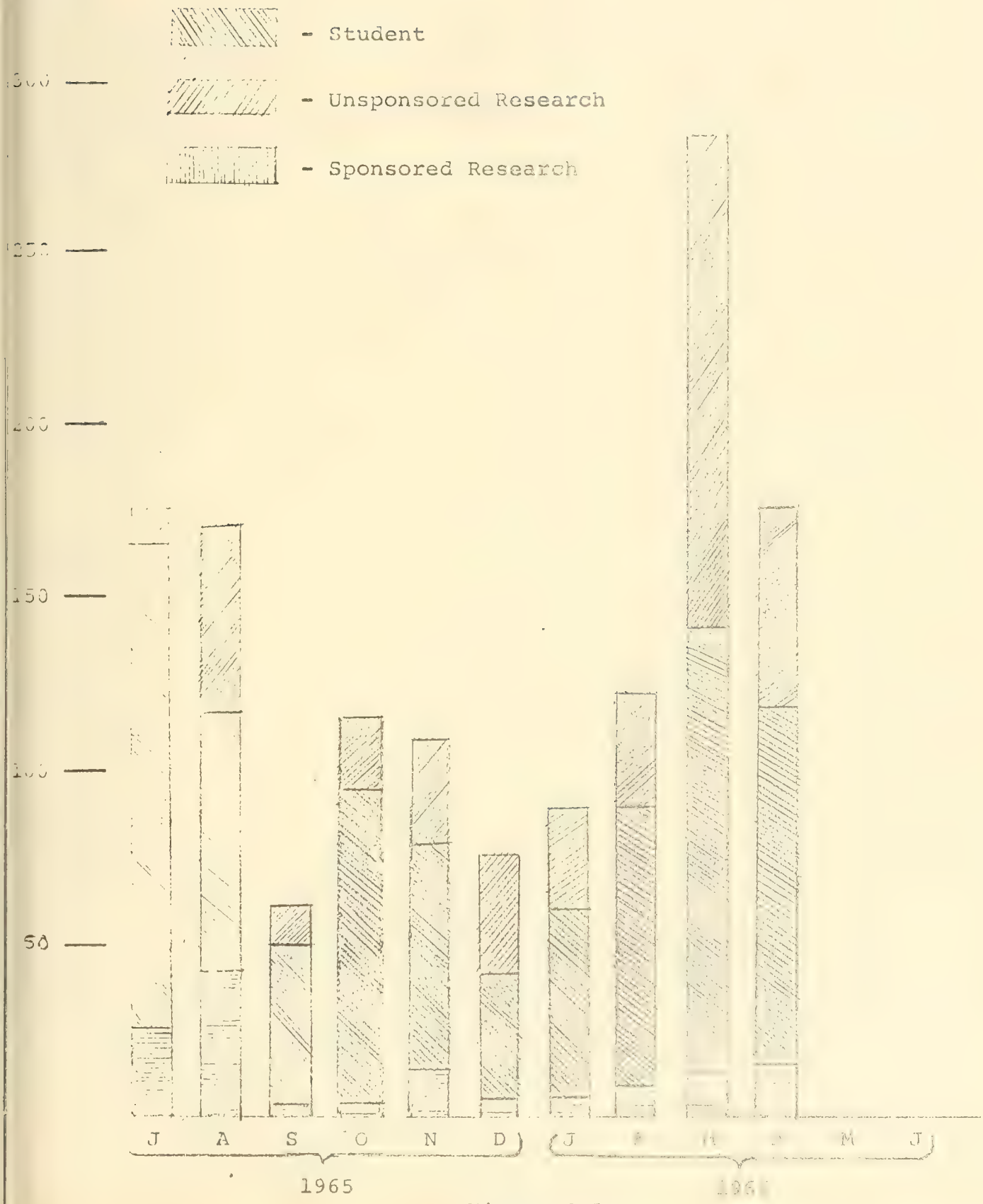


Figure 3.1

NUMBER OF JOBS PROCESSED

CDC-3600

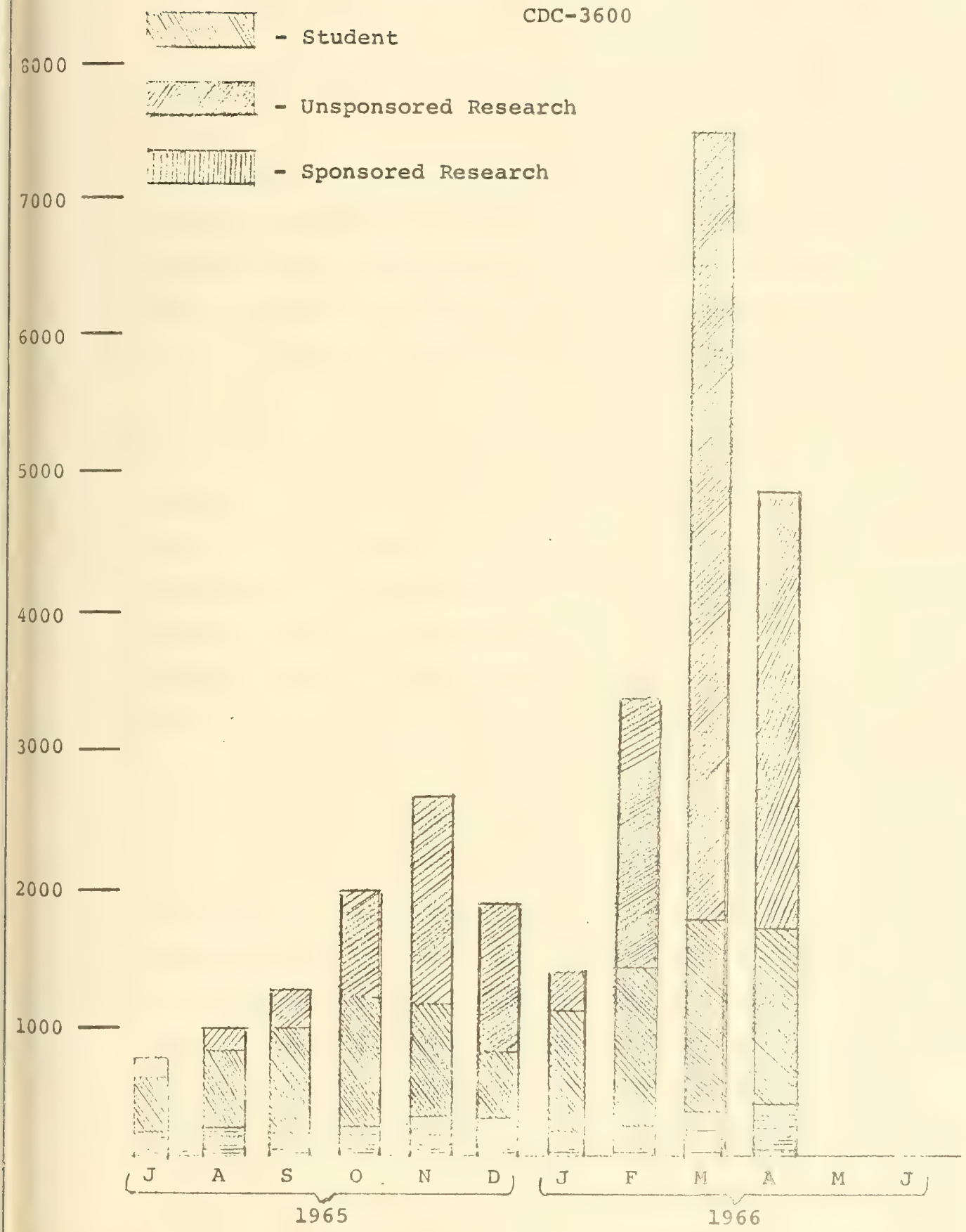


Figure 3.2

was used for the first time for the April 1966 billing. Bills were ready before noon on the first working day in May.

3. Completed translation of the COGO (Coordinate Geometry) system to the 3600. This is a set of routines to which a civil engineer can input field observations such as points, angles, distances, azimuths, etc. and receive answers about areas, grades, distances, etc. The system had been written for an expanded 1620 with disks. The COGO system has been made available to other 3600 users through COOP, the 3600 user's organization.
4. Converted ECAP, a problem solving system for electrical engineers which is analagous to COGO for civil engineering, from IBM 7094 language to run on the 3600. The system is operable, but undocumented pending copyright waiver from IBM on their ECAP reference manual.
5. The BMD series of statistical programs was obtained and is being incorporated into a program library system which is under development. The BMD programs were originally written by the staff of the UCLA Health Sciences Computing Facility for the IBM 7094. Conversion to 3600 was done by Indiana University. The Research Computing Center staff plans to convert a new series of programs recently announced by UCLA.
6. Procedures have been established for the collection and use of a library of general purpose applications programs useful to students and researchers. Much redundant programming effort can be eliminated by a properly controlled program library.

7. A newsletter describing Center policies, services, hours, new programs, programming techniques, etc. has been established. The initial issue will appear in June 1966, with copies sent to all users.

8. Plans for a remote multiple access computing system using teletype lines connected to the 3600 through a PDP-8 have been approved. The system, designated UMASS (Unlimited Machine Access from Scattered Sites), will permit up to 64 users to simultaneously enter problems written in the FORTRAN language into the 3600, and receive answers within a few seconds. ("Solutions computed while you wait.") The system is scheduled to be available in January 1966.

9. Consulting Services

   Two full time consultants and a half time student consultant are available to Center users to assist with programming problems. This service continues to be widely used. During the transition period from 1620 to 3600, an additional special consultant was available on a full time basis to aid in program conversion.

D. 1620 Operations

The IBM 1620 has continued in use by a dedicated group of users, and by the Computer Science Program. One closed shop run per day is scheduled. This policy is expected to continue. Programming effort on the 1620 by the Center staff has dwindled to zero. The system and its software have been extremely reliable.

E. Personnel

During this year, a full time Director and an Assistant Director were appointed. An additional Assistant Director's position remains unfilled.

COMPUTING CENTER USAGE

At the close of this year, 35 departments in the 4-college community have projects which use the Research Computing Center facilities. Seventeen graduate degree programs have no projects active at the Center; of these, four might be expected to have research projects on which a computer could be of aid. These data are summarized in Figures 4.1 and 4.2.

Appendix A contains the abstracts of the problems currently using the Center facilities.

Computing Center Projects

(by Departments)

Administration	20	Industrial Engineering	1
Agricultural Engineering	3	Library (University)	1
Agricultural & Food Economics	6	Mechanical Engineering	9
Astronomy	6	Philosophy	1
Basic Engineering	3	Physical Education	3
Business Administration	10	Physics	9
Chemical Engineering	7	Plant & Soil Sciences	4
Chemistry	25	Political Science	1
Civil Engineering	13	Psychology	36
Computer Science	1	Public Health	1
Electrical Engineering	5	School of Education	6
English	2	Sociology	11
Food Science & Technology	5	Speech	1
Forestry	12	Statistics	9
Geology	5	Veterinary & Animal Sciences	5
Government	6	Zoology	1
Health Service (University)	1	Commercial	10

Total - 246 Projects

35 Departments

17 degree programs not represented

Figure 4.1

DEGREE PROGRAMS WITH NO RESEARCH COMPUTING CENTER PROJECTS

Ph.D.	Masters
*Botany	*Anthropology
Entomology	Dramatic Arts
French	Fine Arts
German	German-Russian
History	Horticulture
Microbiology	*Labor Studies
Plant Pathology	Landscape Architecture
Spanish	Romance Languages
	*Wildlife & Fisheries Biology
8	9

17 with no projects

*Typically, a computer might be applied in this field.

Figure 4.2

PLANS

In the introduction, the dominant goal of the Center was established as the achievement of recognition for excellence in service and in the computing sciences. A significant step in that direction has been made with the decision to implement the UMASS system.

UMASS stands for Unlimited Machine Access from Scattered Sites. It is designed to extend computer access to multiple points about the campus (and possibly about the state) which can simultaneously submit problems to and receive answers from the Center's 3600. Information will be entered and recorded on teletypes, and transmitted over telephone lines. The advantages to this mode of operation are numerous. First, access to the computer is greatly simplified for the majority of users. Secondly, total problem solution time is reduced because of the immediate availability of results. Third, the computer itself can serve many more users in a given period of time, and is used more efficiently. Fourth, with the capability to save programs on a mass storage device, and to edit them from the teletype, the handling of cards with its inherent opportunities for introducing errors is greatly reduced.

Several disadvantages are also obvious. One is that users are restricted in the size of the problem they may submit, and by the language in which it may be expressed. It should be noted that this disadvantage will apply to a minority of users. A second disadvantage to these users is a more limited schedule

for batch processing of their jobs. (This is the manner in which they now are processed). Our ultimate objective is to refine and extend the basic UMASS system until these quoted disadvantages are eliminated or at least minimized. Design work on the initial version of the system is under way, with the first operational version scheduled for January 1967.

Additional hardware is needed to implement the UMASS system. A PDP-8 is on order to interface between the teletypes and the 3600. For the 3600, additional mass storage in the form of high speed magnetic drums and disk units are also on order. The drums were scheduled to arrive in June 1965 but have been delayed several times. We now expect them late in the summer. Disks will probably be deliverable in the Spring of 1967.

The drums will serve two purposes. In the UMASS system, they will act as intermediate storage for messages being sent to and from the teletypes and for temporary storage of programs which are in various stages of processing. When the UMASS system is not operating, a drum-based batch processing system (Drum SCOPE) will be in use, which uses the drums to increase batch program throughput.

The disks will provide a rapid access on-line storage capability for programs and data which are submitted and retrieved under control of the UMASS system. Until the disks are delivered, slower-access tapes may be substituted.

The additional programming and operational requirements imposed by the development and use of these systems require an augmented staff. Between now and June 1968, we should add ten

programmers, and seven operations personnel. The total staff breakdown for June of 1968 should be:

Operations and Administration

1 - Operations Manager
2 - Maintenance Engineers
2 - Keypunchers
2 - Secretaries
2 - PBX Operators (for switching phone lines to UMASS teletypes)
6 - Computer Operators

15

1 - Program Librarian
2 - Programming Consultants
4 - Maintenance (system error correction and improvement)
5 - Development (design and implementation of extended capabilities for UMASS, computer-aided instruction etc.)

12

Beyond the development of the UMASS system, we foresee an increasing sophistication among our users levying additional programming and operational requirements on the staff. Some examples might include real-time experimental data acquisition and reduction, real-time stimulus-response generation and analysis, computer-aided classroom instruction, on-line business gaming with multiple participants, graphics and display control, and on-line scheduling.

The currently planned increase in equipment and staff will require at the very least some modification of our physical arrangement. The projected staff can barely be housed in the current space, even with interior partitioning added. Equipment placement may pose a serious problem if any equipment other than that on order and on hand is acquired. Adequate space has been scheduled for the Center in the new Graduate Research Building. It is not yet clear whether we will outgrow our present quarters before the new facilities are ready.

Report of Computer Science Program
1965 - 1966

Submitted to Dean E. C. Moore
June 1966

	1963/64*	1964/65*	1965/66
Appropriation	-	-	[illegible]
Personnel	1	[illegible]	5
No. of majors	-	-	20
No. of students	300	500	1200

* CSP as part of RCC

Invited Talks etc.

COMMON Users Group:

Chairman, Technical Sessions, Fall Conference in New York, October, 196[illegible]

Chairman, Nominations Committee.

Joint Users Group

Member, Executive Board.

Conducted workshop session for Executives of Computer User Groups on the organization and speaker of Users Groups, Boston, April, 1966.

Appointed representative of JUG to ASA Committee on Programming languages, X3.4.2C, PL/I. Also representative of JUG to ACM Committee on Programming languages.

UMASS Student Chapter ACM - Faculty advisor and institutional representative.
- On February, 1966 gave a talk on "The Computer is a Public Utility - A need & Justification".

A.I.I.E. - Gave talk on - "The Computer is a Public Utility - The Philosophy & Concept", March, 1966.

U.S. Coast Guard Academy - Gave one-day seminar on "Advances and Projections in Programming Languages", May, 1966.

3C Users Group - Gave talk on the place of Users Groups, Boston, April, 1966.

Conferences Attended:

ACM National Conference, August 1965

COMMON Users Group, October 1965 and March 1966

SYMSAM, April 1966

JUG, April 1966

SJCC, April 1966

DECUS/JUG Workshop, April 1966

PUBLICATIONS:

"The Use of a Large Computer on a Bureau Basis." by A. S. Douglas
Computing Reviews, Vol. 6, no. 4, pp. 222, July - August 196[illegible]

Lee, J.A.N., Brown, R., Windover, L.
"Highway Bridge Vibrations III: Cantilever Type Structures"
Ontario Joint Highway Research Program Report #39, January 1966

Lee, J.A.N., Brown, R., Windover, L.
"Highway Bridge Vibrations III: Cantilever Type Structures"
Dept. of Civil Engineering, Queen's University at Kingston, Ontario
C.E. Report #48

Lee, J.A.N., McGowan, J. P.
"The Prediction of the Buckling Load of Columns by Non-Destructive Testing Methods" Department of Civil Engineering, Queen's University, Kingston, Ontario. Ontario Joint Highway Research Programme, Ontario Department of Highways, Report #41, August, 1965.

Lee, J.A.N., Hope, B. B.
"Tests on a Laboratory Bridge III---Lateral Stability of the Trusses", Ontario Joint Highway Research Program, Report #23, October, 1964.

LEE, J.A.N., "The Effect of Cross Frame Stiffness and Torsional Restraint on the Buckling of Pony T as Bridges" Ontario Department of Highway Research Program. Report #35, June, 1965.

KINGSTON FORTRAN II Language Specifications
3rd Printing University of Toronto Press. (Revised) January 1965
4th Printing Computer Science Program, University of Massachusetts.
(Revised) December 1965

Text on "Computers & Numerical Analysis" presently in page proof stage by Reinhold Publishing Co. Due for publication June 1966.

Currently working on text on Compiler. Writing for possible publication by Prentice Hall. Manuscript is to be complete by September 30, 1966.

RESEARCH:

Continued in the development of the KGTII system, now slated for implementation on System 360. In particular have been investigating techniques for the extension of the basic language.

Continued to investigate techniques of algebraic and symbolic manipulation.

Have started work on the development of mathematical models of non-natural languages with a view of their more meaningful definition, extension, development and testing. Such a model will be machine independent and will enable a language originator to check for syntactical, semantic and pragmatic ambiguities. Further, such a model might form the basis of a computer meta-language so that new languages could be implemented rapidly.

REPORT OF J. J. CODY

Report July 1, 1965 - June 30, 1966

A series of six 1-½ hour lectures on FORTRAN programming presented during the fall and spring semesters as a part of the Review Mathematics course which was set up by Dr. L. H. S. Roblie, Department of Chemical Engineering, University of Massachusetts for Monsanto Chemical, Springfield, Massachusetts.

Special Projects

During the period covering this report, a course very similar to our own CS 121 was given to three high school groups. There were 53 students from Cathedral High School, Springfield, 28 from Amherst Regional High School, Amherst and 37 students from St. Michaels High School, Northampton.

The course consisted of between 18 and 25 hours of lecture at the various high schools plus workshop sessions at the Research Computing Center on Saturday mornings. Basic Fortran Programming by Decima Anderson was used as a text and most of the problems in the text were solved by the students outside of class. A final exam was given to the Cathedral High School group only; their performance for the most part was at least equivalent to our own students, and several of the students were above average when compared with University students. This program will continue next year under the sponsorship of the Student Chapter of the Association of Computing Machinery at the University of Massachusetts.

A report of this work is in preparation and will be submitted to educational and technical journals for publication.

REPORT OF S. RUBENSTEIN

From September 1965 to March 1966, I served as a Programmer-Analyst for the Master Plan Study Group of the Massachusetts Bay Community College Program. Working with Mr. William Arthur, a Graduate Assistant at the Research Computing Center, UMASS, I developed a solution technique and did the programming for the following problem:

> Given the Public School Enrollments for each town in the Commonwealth, grade by grade for the years 1950 to 1962, use numerical analysis techniques to fill in gaps in the data and to project the sizes of the high school graduating classes in the year 1975. Then, combine these figures with commuting times throughout the Commonwealth and with geographic locations of the towns of the Commonwealth, and determine the Optimum Location of a Minimum Number of Community Colleges which will be capable of serving at least 95% of the available high school students. Constraints enforced included maximum and minimum sizes for the colleges and commuting times from student homes to the colleges.

It appears from the work that we did that the research was justified. Other methods of analysis indicated that at least 11 Community Colleges were necessary. Our analysis showed that only 8 were necessary. This will eventually result in savings to the Commonwealth of about $30 Million.

At the present time I am preparing a paper concerning this work to be submitted to educational & Technical journals.

6. Major accomplishments

I believe the major accomplishment of the Computer Science Program this past year has been that it existed. The whole offering of the program has been produced and formalized though much still needs to be done to eventually have a rich enough offering to expand to a Ph.D. program. Our current problem, which is common with that of the Research Computing Center, is that the competition with industry in obtaining qualified instructors is to find that one can only hope to attract those persons who are dedicated to the academic life. Further, programs such as our own have not yet produced graduates who would fill the gap.

8. Future Plans

The future of the Computer Science Program will depend not only on the personnel attracted to the academic ranks but also on the type of education and research being conducted within the group. To this point of time, all efforts of the group have had to be concentrated on education with little time left for research. Such extra projects as have been operated have either been in the field of extra curricular teaching in the surrounding schools or in the maintenance or extension of systems in the Research Computing Center.

In the future it is hoped that a single research topic might be found which would involve the talents of the whole group and which would be attractive to graduate students as a basis for M.S. thesis topics. Such a task could be the design and construction of a CRT display system with the subsequent software development which would lead to the availability of displays on campus in other departments. With such a system, Computer Science graduate students would become involved in the development of computer driver systems for automated teaching machines, the development of systems for graphical communication and design, and the techniques of information retrieval display.

One of the great needs in the computer industry today is for students trained in the intricacies of computer software systems for supervision, monitoring and timesharing. While we can expect that the availability of the CDC 3600 and the anticipated development of the UMASS system will provide such experience, we currently possess inadequate means of providing training in this area. The CDC 3600 is primarily for the benefit of the researchers on campus and is an expensive piece of equipment to allow students to learn upon. Further, its use as a teaching tool is inconvenient since any time which is available for such student experimentation is during the night hours.

It is therefore the hope of the Computer Science Program to obtain a small computer for such training with the peripheral equipment necessary for research in graphical display systems and with the capability of having new equipment added as it is developed. Unfortunately, the cost of supporting a meaningful Computer Science Program is far greater per student than most other courses of study and it cannot be anticipated that sufficient funds will ever be available for the purposes of Computer Science research. Thus as a starter it is hoped that the existing IBM 1620 be made available for this purpose, with the allowance that experimental peripheral devices might be added and that the main frame be updated to allow the addition of the available devices to simulate the equipment necessary to support a supervisory and monitor system.

On the other hand, much of this cost might be avoided if a contract to develop software for a new computer can be negotiated with a manufacturer which would include the provision of the computer.

As a start to this work it is proposed that in the next fiscal year, the Computer Science Program group build a CRT device to be attached to the IBM 1620 to prove the compatibility of the team. Such a device would cost approximately $7,000 as opposed to the cost of an inexpensive commercial display at $37,000.

With a meaningful program of researchers, it would be expected that the task of attracting staff would be made easier.

The Computer Science course of study is, by definition, a galloping devouring octopus whose tentacles are clutching at and using the products of, many other disciplines. In some schools, the extension of Computer Science into other fields has been by the interest and subsequent education of the staff of Computer Science while in other schools, the specialists, in those other fields, have been drawn into the computer field to fill the void and have been given the computer knowledge necessary to exercise their skills in this area.

At the University of Massachusetts there are voids in the Computer Science Program needing courses of instruction and needing staff with special skills, while in the whole community there are gaps in courses of study where the Computer Science Program has the staff. In particular, the Computer Science Program has the need for staff skilled in linguistics and logic while the neck of applied mathematics in the University has been thoroughly wrung outside the Computer Science Program.

This without sticking the neck of the Computer Science Program out too far, it would seem that the time is ripe to investigate the possibility of extending the scope of the Computer Science Program (maybe under another name) to provide service courses in these other areas, while gaining the specialized courses and the research project leaders needed.

Unfortunately, the prime opponent to such a scheme will be the attitudes of most department heads who are not favorably disposed to not being able to control the activities of their staff hourly, nor are prepared to support the proposition of joint appointments, since it will admit to their lack of justification for a full appointment.

As examples of joint sponsorship of course offerings, the following ought to be considered.

TOPIC	DEPARTMENTS CONCERNED
Information Theory	Comp. Sci., Statistics & Elect. Eng.
Quantitative Linguistics	Comp. Sci., Language & Statistics
Theory of Language	Comp. Sci., Language & Philosophy
Artificial Intelligence	Comp. Sci., Philosophy & Psychology
Computer Graphics	Comp. Sci., Basic Engineering, Art.

With regard to the course offerings in the Computer Science Program as presently approved by the Graduate Council & the Board of Trustees, after a year's experience and particularly after teaching these courses for the first time, it appears that in several instances, I overestimate the amount of information that may be taught in one semester. I, therefore, anticipate that certain courses will be extended to 2 semester sequences.

UNIVERSITY HOUSING OFFICE

UNIVERSITY OF MASSACHUSETTS

Amherst, Massachusetts

ANNUAL REPORT

(July 1, 1965 - June 30, 1966)

John C. Welles

Director

June, 1966

GENERAL INTRODUCTION

The Housing Office has once again undergone vast changes and improvements during the 1965-66 fiscal year. The staff load over the past two fiscal years has increased two-fold in respect to the normal increase of total student enrollment. The Housing Office Staff has willingly undertaken many new tasks with both gratefulness and enthusiastic accord.

The material contained herein is a tabular form of both procedures and accomplishments acted upon or achieved by the total office staff. It is our firm belief that we exist here to serve the student body and staff of the University of Massachusetts. We expect to receive an ever increasing amount of student and staff contact as the next fiscal year unfolds.

I N D E X

	TOPIC	PAGE
I.	Appropriation for the fiscal year 1963-64, 1964-65, 1965-66.	1
II.	Personnel - number in each rank (Sept. 1963, Sept. 1964, Sept. 1965).	1
III.	U. of M. Housing Office Organizational Chart	2
IV.	Students or clientele served (Sept. 1963, Sept. 1964, Sept. 1965)	3-4
V.	Faculty publications, research grants, research projects and other professional activities	5
VI.	Major accomplishments during the fiscal year 1965-66	6-7
VII.	Special projects or programs operated by the U. of M. Housing Office during the 1965-66 fiscal year	8
VIII.	Future plans and needs	9-10
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I. APPROPRIATION for the Fiscal Years 1963-64, 1964-65, 1965-66:

	Housing	Foreign Student Affairs	Total
1963-64 -	$1,265.00	$100.00 (From Student Senate for Foreign Student Reception)	
1964-65 -	$3,045.00	$100.00 (From Student Senate for Foreign Student Reception)	
1965-66 -	$5,280.00	$2,625.00	$7,905.00

II. PERSONNEL:

A September 1963

Rank	Number in Position	
Director of Housing	1	
Staff Assistants	2	
Administrative Assistant	1	
Assistant Housing Officers	2	
Senior Clerk Stenographer	1	
Junior Clerk Stenographer	1	

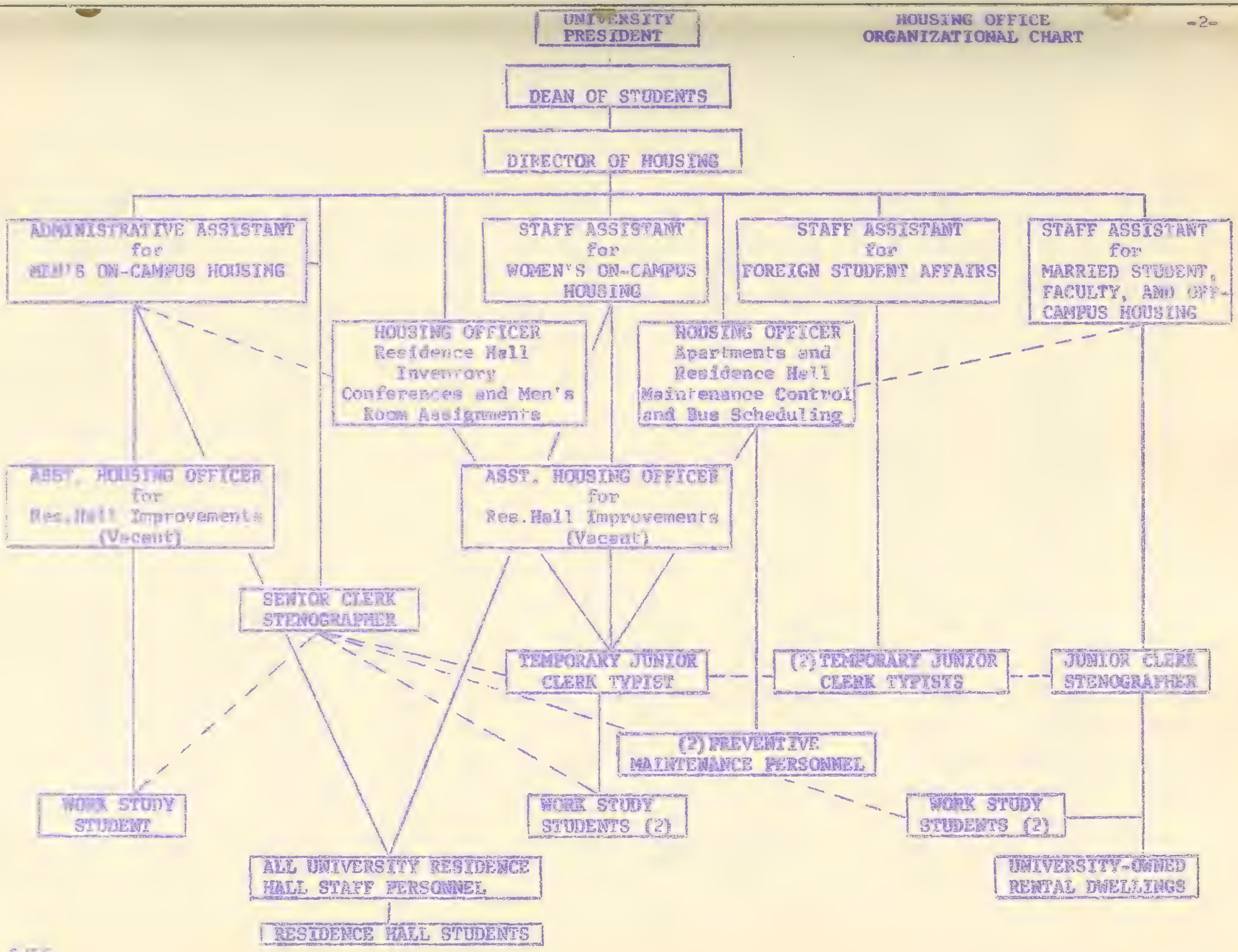
B. September 1964

Director of Housing	1	
Staff Assistants	2	
Administrative Assistant	1	
Housing Officer	1	
Assistant Housing Officer	1	
Senior Clerk Stenographer	1	
Junior Clerk Stenographer	1	

C. September 1965

Director of Housing	1	
Staff Assistants	2	
Staff Assistant (Foreign Students)	1	(As of May 1, 1966)
Administrative Assistant	1	
Housing Officer	2	(Inc. 1 as of Feb. 1, 1966)
Assistant Housing Officer	1	(To Feb. 1, 1966)
Senior Clerk Stenographer	1	
Junior Clerk Stenographer	1	
Temporary Clerk Typists (03)	2	(Foreign Student Affairs)
Temporary Clerk Typist (03)	1	(As of April 26, 1966)
Work Study Students	5	(1 as of 6/1/66)
Maintenance Helpers	2	

HOUSING OFFICE ORGANIZATIONAL CHART



6/56

IV. STUDENTS OR CLIENTELE SERVED:

A. September 1963 -

Served a total clientele which included undergraduate students in residence halls faculty in University-owned dwellings, staff in University-owned dwellings and graduate students in University-owned dwellings of approximately 7,000 individuals.

B. September 1964 -

Served in excess of 9,000 individuals in the areas of room assignments, apartment assignments and help in directing individuals who were seeking off-campus accommodations.

C. September 1965 -

1. Processed residence hall applications for more than 7,000 undergraduate students. This figure includes more than 400 Stockbridge students and over 200 Graduate students.

2. Processed assignments for over 800 students in fraternities and sororities.

3. Staff members individually spoke with and processed billing information for over 1300 students who are either commuting from home or living in private facilities off-campus.

4. Re-assigned 450 Stockbridge students to four-year residence halls in preparation for occupancy in September of 1966.

5. Various members of the office staff met with and counseled all of the University's 292 foreign students.

6. Presently in the process of assigning student rooms for 1966 for approximately 9,825 students.

7. Have recently processed over 4,000 Summer School applications for the current year. Of these more than 1,200 were personal contacts.

8. Daily contact with student, faculty and staff members seeking off-campus accommodations totals some 4,500 persons. As many of these individuals may return to this office more than once the actual number of contacts may have reached as many as 8,000.

9. The total office has handled more than 2,000 pieces of correspondence going from the University to other parts of the world.

10. Personally met with or corresponded with more than 150 home owners, landlords, landladies and real estate agents. (Present file of rental listing cards numbers in excess of 1,000).

11. Screened applications for 450 individuals seeking accommodations in University-owned dwellings. Of these 125 assignments were made.

12. Handled bus schedules for field trips and other events for off-campus and out-of-state travel to more than 30 departments on campus.

13. Assisted in preparing residence halls for the occupancy of over 30 conferences which included approximately 8,000 conferees.

14. Helped to secure loans for 38 foreign students, totaling $2,360. (All loans were repaid as of May of 1966).

V. FACULTY PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS AND OTHER PROFESSIONAL ACTIVITIES:

A. Participated in The National Association of College and University Housing Officers residence hall cost study program (copy on file at Penn State University, University Park, Penna.).

B. Completed and published study entitled "A Study of Off-Campus Housing At The University of Massachusetts" (see Appendex).

C. Published brochure entitled "Off-Campus Privately-Owned Housing" (see Appendex).

D. Presently formulating brochure for "University-Owned Rentals". (Brochure in press).

E. Developed a University brochure pertaining to information involving the Southwest Complex. (Brochure in press).

F. Presently developing a University map and directional information for incoming students. (In press).

G. Conducted annual foreign student census for the International Institute of Education (copy on file at I.I.E. Office in Boston).

H. Surveyed faculty and reported to the International Institute of Education on research dealing with International Education Exchange conducted at the University of Massachusetts.

VI. MAJOR ACCOMPLISHMENTS during the fiscal year 1965-66:

A. Integration of Stockbridge School of Agriculture students into four-year residence halls.

B. Publication of heretofore mentioned brochures and/or studies.

C. Helped to develop new data processing room, board and billing card for undergraduate students.

D. Served as consultants for and participated in designing programs for the University College Coordinating Committee (developed special requirements for residence halls).

E. Added the Foreign Student Affairs Office as part of the Housing Office function (May 1, 1966).

F. Acquired two preventative maintenance personnel to help in locating, marking and repairing various pieces of furniture for The University of Massachusetts Building Authority Residence Halls.

G. Formulated a new undergraduate student room selection procedure (assigned accommodations to over 9,000 undergraduate and graduate students).

H. Developed and carried through a proposal for the University of Massachusetts Graduate House (192 graduate students).

I. Developed a new University-owned apartment application keysort card.

J. Completely developed and formulated a rental evaluation form based upon a square foot system for all University-owned dwellings.

K. Developed a new maintenance work request control system for a more effective and efficient completion notification process.

L. Succeeded in adding several new work study students for research projects and general office help.

M. Transferred the married student, faculty and off-campus housing office to a more suitable location in order to serve clientele more adequately.

N. Produced 14 new office forms to streamline office procedures.

O. Developed a keysort card system for foreign students which includes all pertinent information concerning each student's stay at the University of Massachusetts.

P. Developed extremely close coordination between Men's and Women's Affairs Committee of the Student Senate while in the process of assigning student rooms for September 1966. Made additions to residence halls totaling more than 1,100 students.

Q. Developed an extremely good working relationship with more than 30 residence hall staffs.

R. Processed over 550 work requests for residence halls and apartment repairs and improvements.

S. Inspected over 78 University-owned apartments and processed all necessary work involved.

T. Accompanied over 40 foreign students to the State House on the Annual International Foreign Student Day in Boston.

U. Accompanied over 40 students on a trip to the U. N. Building sponsored by Mortar Board and Student Senate.

V. Participated in the Experiment in International Living at Putney, Vermont to discuss and arrange for orientation and home-stays for accepted students entering the University of Massachusetts in September of 1966.

VII. SPECIAL PROJECTS OR PROGRAMS OPERATED BY THE UNIVERSITY OF MASSACHUSETTS HOUSING OFFICE during 1965-66 fiscal year:

A. One member of the staff participated as a faculty fellow in the Southwest Residential College.

B. Helped to develop, formulate, and add membership to the Southwest Coordinating Committee.

C. One member of the staff served as a member of the University College Coordinating Committee.

D. Presently developing a nation-wide survey to procure the various funding procedures for apartment units using some 50 institutions of higher learning for the gathering of needed data.

E. Presently developing a proposal for a University of Massachusetts Housing Agreement or contract for residence hall students.

F. Conducted tours of the University of Massachusetts 22-story residence halls to more than 800 students, staff and dignitaries.

VIII. FUTURE PLANS AND NEEDS:

A. The Housing Office is earnestly concerned with the development of an adequate all encompassing residence hall program. As an outline for some proposed procedures that such a program might include we list the following as basic guidelines:

1. Development of a staff position as Program Director of Residence Halls.

2. Close coordination between all aspects of University counseling services and the proposed residence hall program.

3. Development of a graduate program in student personnel services for higher education to be given to Heads of Residence and Resident Assistants (doctoral and master's level).

4. Development of a continuing in-service training program for Heads of Residence, Resident Assistant and Counselors. This training program to be offered with academic credit.

5. Internal residence hall responsibilities divided into these areas:

   a. Head of Residence
   b. Assistant Head of Residence
   c. Academic and Cultural Graduate Assistant
   d. Social and Athletic Graduate Assistant
   e. Counselors and /or Resident Assistants

6. The responsibilities for residence hall government should be completely in the hands of students elected to various positions with the Head of Residence and Assistant Head of Residence as advisors.

B. New staff and materials. In order that this office may fulfill all of the duties required and expected the following are needed additions:

1. The hiring of a Staff Assistant to handle area affairs for the Housing Office in the Southwest Residential College.

2. The development of an off-campus inspection and/or approval team consisting of a staff assistant with secretarial help.

3. Additional secretarial help for each of the main Housing Office functions (on-campus and off-campus housing and foreign student affairs).

4. The development of an increased residence hall preventative maintenance staff. It is recommended that this staff include various labor tradesmen such as carpenters, painters, machinists, plumbers, electricians, etc. In addition to this it is also recommended that other personnel on this staff might include an upholstery and pedestrian shop to care for the needs of residence hall furniture repairs.

5. Again, in order to adequately meet the needs, duties and responsibilities placed upon us additional equipment must be procured. These items include three electric typewriters, a photographing machine, a duplicating machine and a mimeograph machine, one additional staff car and the equipment and vehicles necessary for the above mentioned residence hall preventative maintenance staff (tools, materials, and carryalls or trucks).

C. The development of a residence hall and apartment deposit system to insure for the finances of repairing these facilities should things become broken, lost or stolen. In order to accomplish this task various accounting and bookkeeping staff will be needed.

D. Foreign Student Affairs.

1. Due to the implications of conflicting loyalties to foreign governments especially as pertained to students sponsored by their governments, the loyalty oath required of graduate assistants be waived in the case of foreign students.

2. Continued participation in exchange programs:

a. African Scholarship Program of American Universities (ASPAU)
b. International Student Service (ISS)
c. National Association for Foreign Student Affairs (NAFSA)

and that it make a financial contribution to the Institute of International Education. The University of Massachusetts is the only New England Land Grant University which does not now contribute to I.I.E. however, 14 I.I.E. related students attended the University of Massachusetts during the 1965-66 academic year.

3. NAFSA Field Service Consultation:

It is recommended that the University accept in the very near future the offer made by NAFSA to send a Field Service Program trained consultant to help assess the present University of Massachusetts foreign student program, offer an "over-view" of the national foreign student situation and advise the University in regard to any problems concerning its international educational exchange program.

IX. APPENDEX

A. Foreign Student Growth
Exchange Visitor Program
Foreign Student Enrollment
Foreign Student Departmental Breakdown
Foreign Student Home Country
Undergraduate Foreign Student Loans

B. Off-Campus Privately-Owned Housing Brochure

C. A Study of Off-Campus Housing at the University of Massachusetts

A.

FOREIGN STUDENT GROWTH--UNIVERSITY OF MASSACHUSETTS

Year	Un. Grad.	Grad.	Stockbridge	Total
1960-61	10	46	--	56
1961-62	10	63	--	73
1962-63	18	92	2	112
1963-64	17	132	5	154
1964-65	22	219	7	248
1965-66	33*	250	9**	292

* Includes 5 special students

** Includes 3 special students

Two copies to be completed and returned to: Facilitative Services Staff
Bureau of Educational and Cultural Affairs
Department of State
Washington, D. C. 20520

EXCHANGE-VISITOR PROGRAM

Annual Report

1. Exchange-Visitor Program No. ~~PI-157~~ 2. Twelve-month period ending June 30.

3. Please list below, by each type of activity offered, the number of exchange visitors participating in the Program during the reporting period:

Activity	Number
Students	11
Practical Training	0
Professors	5
Research Scholars	17
Other (specify)	0
TOTAL	33

4. If the Program is currently inactive, please check desired action to be taken by the Department of State:

/ / Cancel the Program (This will not preclude future designation of a Program)

/ / Continue the Program in effect (Please give reasons) _____

5. I, the Responsible Officer of the Program indicated above, certify that no participant has been engaging in activities other than those listed above.

Evelyn H. Russell

(Mrs.) Evelyn H. Russell
Signature of Responsible Officer listed with the Department of State

July 1, 1966
Date Report Submitted

6. University of Massachusetts
Name and address of sponsoring institution as recorded with the Department of State

Amherst, Massachusetts

UNIVERSITY OF MASSACHUSETTS FOREIGN STUDENT ENROLLMENT
1965-1966

COUNTRY	GRADUATE	UNDERGRADUATE	STOCKBRIDGE	SPECIAL	TOTAL
ANTIGUA, W. INDIES	1				1
AUSTRALIA	1				1
AUSTRIA		1			1
BRAZIL	1				1
CAMBODIA	1				1
CANADA	16	1	2	1	20
CHINA	100			1	101
COLOMBIA	2	1			3
CUBA		2			2
ECUADOR	1		1		2
EGYPT	2				2
ENGLAND	5				5
ETHIOPIA					
FINLAND				1	1
FRANCE	5				5
GERMANY	4				4
GHANA		1			1
GREECE	4	1			5
HONG KONG, U.K.	4	4		1	9
HUNGARY	1				1
INDIA	26	1			27
INDONESIA	1				1
IRAN	1				1
IRAQ	1				1
ISRAEL	4	2			6
ITALY	1	2			3
JAMAICA	4				4
JAPAN	7				7
JORDAN	2	1			3
KENYA	5	1			6
KOREA	15				15
LEBANON	1				1
LIBERIA			1		1
MALAWI		5	3*		8
MALAYSIA	1				1
MEXICO	2				2
NEPAL	1				1
NIGERIA	1	1	2		4
PAKISTAN	5				5
PANAMA	1				1
PERU	1				1
PHILIPPINES	9				9
POLAND		1			1
PORTUGAL	1				1
RYUKYU ISLANDS	1				1
SAUDI ARABIA	3				3
SOUTH AFRICA	1				1
SPAIN	1				1
SWITZERLAND	1	1		1	3

UNIVERSITY OF MASSACHUSETTS FOREIGN STUDENT ENROLLMENT
1965-1966

COUNTRY	GRADUATE	UNDERGRADUATE	STOCKBRIDGE	SPECIAL	TOTAL
TRINIDAD & TOBAGO	1				1
TURKEY	2				2
UGANDA	1	1			2
URUGUAY	1				1
TOTALS	250	28	9*	5	292

* includes three special one semester students

NUMBER OF FOREIGN STUDENTS IN VARIOUS DEPARTMENTS
UNIVERSITY OF MASSACHUSETTS
1965-1966

College of Agriculture		
Agriculture	2	
Agriculture and Food Economics	6	
Agricultural Engineering	11	
Agricultural Science and Technology	1	
Agronomy	1	
Animal and Poultry Science	6	
Entomology	6	
Fish. Biology	2	
Food Science and Technology	22	
Landscape Architecture	2	
Plant and Soil Science	7	
Plant Pathology	2	
DEPARTMENT NOT		68
College of Arts and Science		
Art	3	
Botany	1	
Chemistry	37	
Computer Science	3	
Economics	11	
English	4	
Geology	2	
German-Russian	5	
Government	19	
Mathematics	8	
Philosophy	1	
Physics	25	
Political Science	1	
Pre-med	1	
Psychology	2	
Romance Languages	6	
Sociology	5	
Speech	1	
Zoology	4	
		139
School of Business Administration		
Business Administration	7	
Accounting	1	
		8
S		
School of Education		7
School of Engineering		
Engineering	1	1
Chemical Engineering	5	
Civil Engineering	21	
Electrical Engineering	3	
Mechanical Engineering	4	
Industrial Engineering	3	
		37

NUMBER OF FOREIGN STUDENTS IN VARIOUS DEPARTMENTS
UNIVERSITY OF MASSACHUSETTS
1965-1966

School of Home Economics	6
School of Physical Education	1
Public Health	1
Statistics	11
S	
Special Students	5
Stockbridge	9
TOTAL	292

COUNTRY

	Antigua, W. Ind.	Australia	Austria	Brazil	Cambodia	Canada	China	Colombia	Cuba	Ecuador	Egypt	England	Ethiopia	Finland	France	Germany	Ghana	Greece	H ong Kong, U.K	Hungary	India	Indonesia	Iran	Iraq	Israel	Italy	Jamaica	Japan	Jordan	Kenya	Korea	Lebanon	Liberia	Malawi	Malaysia	Mexico	Nepal	Nigeria	Pakistan	Panama	Peru	Philipines	Poland	Portugal	Ryukyu Is.	Saudi Arabia	S. Africa	Spain	Switzerland	Trinidad & Tobago	Turkey	Uganda	Uruguay	
College of Agricul.																																		2																				
Agricul.							2																		1		2						1																					
Agricul. & Fd. Econ.					2	3			1						1						3				1																													
Agric. Engin.																	1				1																																	
Agric. Sci. & Tech.																																																					
Agronomy					1																2																																	
Animal/Poultry Sci.							1			1											1																																	
Entomology							1														1						1	1																										
Fish. Biology																																																				
Fd. Sci. & Tech.	1	1		1	1	5	4													1	2									1				1																		
Landscape Arch.						1																																														
Plant/Soil Sci.						2	1					1																			1	1																			
Plant Pathology							1																		1																												
College Arts/Sci.																																																				
Art						1	1														1																																	
Botany																					1																																	
Chemistry							20												1	4	3				1		2		2	2	1																		3				3
Computer Sci.							1																																										1	1			
Economics							4														1			1						1	1															1						1
English						1																					2	1																									
Geology																																					1									1							
German-Russian											1				4														2																								
Gov't							6						1								1	1									3							1			2	1	1									1
Math.							5															1								1	1																					
Philosophy							1																																													
Physics							16												2		4						1				1																						25
Political Sci.																															1																				
Pre-med																										1																										
Psychology							1																																													
Romance Lang.															3											1																											
Sociology																		1			1							1																									
Speech						1																																														
Zoology						2															4											1																					

COUNTRY

	Antigua, W. Ind.	Australia	Austria	Brazil	Cambodia	Canada	China	Colombia	Cuba	Ecuador	Egypt	England	Ethiopia	Finland	France	Germany	Ghana	Greece	Hong Kong, U. D.	Hungary	India	Indonesia	Iran	Iraq	Israel	Italy	Jamaica	Japan	Jordan	Kenya	Korea	Lebanon	Liberia	Malawi	Malaysia	Mexico	Nepal	Nigeria	Pakistan	Panama	Pweu	Philippines	Poland	Portugal	Ryukyu Is.	Saudi Arabia	S. Africa	Spain	Switzerland	Trinidad Σ Tobago	Turkey	Uganda	Uruguay
School of Bus. Adm.																																																						
Bus. Admin.							1	1			1																															2			1								
Accounting																															1																						
School of Education						1	3					1																		1																						1	
School of Engin.																																																						
Engineering																																																	1				
Chem. Engin							1				1								1		2																																
Civil Engin							1	2	1										1		3				1													1	2														2
Elect. Engin.								1										1													1																						
Mech. Engin.							1																1		1																										1		
Industrial Engin.							1											1																		1																	
School of Home Ec.							3					1																			2																						
School of Phy. Educ.												1																																									
Depart. of Pub. Hth.							1																																														
Statistics							9											1			1																																1
Special Students						1	1							1					1																														1				
Stockbridge						2				1																							1	3					2														
																																																						TOTAL	292

Undergraduate Foreign Student Loans----Sept. 10, 1964-June 16, 1966

Name	Loan	Date Authorized	Repaid
Norman Leung Man Chan	$30	2/1/65	2/19/65
	$50	3/25/65	4/29/65
	$50	9/21/65	10/30/65
	$50	2/14/66	4/18/66 ($3 5/19/66 ($2
Kwaebou Conateh	$30	6/15/65	6/26/65
George Gikonyo	$150	9/25/64	10/27/64
	$200	3/2/65	4/27/65
	$50	6/3/65	6/24/65
	$60	9/10/65	12/15/65
	$60	1/13/66	2/18/65
	$50	3/2/66	4/12/66
	$60	4/22/66	5/11/66 ($ 6/10/66 ($
Vincent Gondive	$50	9/13/65	9/27/65
Abdullaln Ibrahima	$50	9/7/65	10/27/65
Redson Kapitao	$50	9/13/65	9/28/65
Laston Adamson Kaunda	$60	1/7/66	1/24/66
	$20	2/18/66	4/28/66
	$80	3/11/66	4/29/66
Wainam A. Massai	$30	4/26/66	6/2/66
Abdulsalami Matazu	$40	4/15/65	5/18/65
Philip McClain	$45	12/10/64	1/15/65
	$100	2/1/65	3/16/65
	$100	7/8/65	9/14/65
	$100	10/1/65	11/1/65
	$25	10/20/65	11/1/65
	$15	11/24/65	1/11/66
	$100	4/14/66	4/14/66
	$35	5/18/66	6/9/66
William Mtawali	$60	1/21/66	1/26/66
	$40	2/10/66	3/1/66
	$80	3/11/66	4/29/66
Joshua Mtimuni	$50	9/13/65	9/27/65
	$50	3/28/66	5/9/66
Jones Ntholo	$60	1/14/66	1/26/66
	$80	3/11/66	4/28/66

nock Ntokotha	$50	6/14/65	7/19/65
ylvanus Odurukwe	$50	6/28/65	8/30/65
	$100	9/1/65	9/29/65
TOTAL	$2360		

ALL FORIEGN STUDENT LOANS PAID IN FULL.
June 16, 1966

B

Off-Campus Privately-Owned HOUSING

Housing Office
University of Massachusetts
nherst, Massachusetts 01002
413-545-2785

SERVICES PROVIDED

Faculty, staff, graduate students, and undergraduate students of the University who seek off-campus accommodations may obtain assistance from the Housing Office. Provided are:

1. A card file of landlords who have apartments, houses, and rooms for rent and information about houses for sale.

2. Rental listings of local realtors, classified newspaper rentals, and a bulletin board where persons seeking a roommate may advertise.

3. Information about used furniture, local realtors, brochures of apartment developments, and maps of the area.

Because rental listings change quite rapidly and most landlords prefer to meet a prospective tenant in person, it is impractical to send "lists" of rental accommodations by mail. In addition, because personal requirements and tastes vary so widely, the Housing Office is unable to reserve off-campus rentals for persons; all contacts and exchanges of money are made directly between the renter and the landlord. The Housing Office does attempt to remove rental listings when they are no longer available, but because of the high rental turnover it can not guarantee the current availability of off-campus listings.

If you find it inconvenient to visit Amherst, the Housing Office will be pleased to assist someone that you have asked to represent you, such as a friend, relative, or department associate. If you ask someone to represent you, please give them your specific requirements and the maximum rent, including utility cost, that you are able to pay.

TYPES OF HOUSING

The rapid expansion of the University has resulted in a serious shortage in off-campus housing. Rooms, apartments, and houses in the University area are often very difficult to find; moderate priced rentals within three miles of the University are usually taken early. The best time to look for housing is in June and July at which time the greatest number of vacancies occur. You should plan to spend a few days in Amherst because housing arrangements can seldom be made in one day or by letter.

There is a great variation in the quality and price of rentals. Most apartments and houses listed are not furnished; a few do not have a stove or refrigerator. Most apartments listed are in converted private homes, but a few are in apartment buildings. Rooms that allow cooking privileges or the use of a hot plate are extremely difficult to obtain.

Rents are usually in the following ranges:

Furnished Rooms	-	$ 45	to	$ 60 per month
Furnished Apartments	-	$ 90	to	$160 per month
Unfurnished Apartments	-	$ 80	to	$150 per month
Unfurnished Houses	-	$110	to	$200 per month

Room rents usually include heat and electricity, but apartment and house rents often do not include these utilities.

LANDLORD-TENANT AGREEMENTS

The Housing Office urges you to pay a deposit and get a written agreement of occupancy when you decide to rent a room, apartment, or house. This is particularly important if you do not intend to occupy the rental for several months. Although it is not required, the Housing Office strongly recommends that landlords and tenants make a written rental agreement before occupancy to avoid possible future misunderstanding about the rental terms. Specific information can be obtained from the Housing Office about what points should be discussed and agreed upon before occupancy.

DISCRIMINATION

Landlords may select their tenants by having requirements that apply to all University persons, but they may not discriminate because of race, religion, color, or national origin. All landlords who list their rentals with the Housing Office have signed a pledge of non-discrimination. If you believe you have been refused housing because of discrimination, please notify the Housing Office.

NEWSPAPERS

Private rental listings in the University area can be obtained from the following newspapers:

Amherst Record Journal (weekly), Cook Place, Amherst

Daily Hampshire Gazette (daily), Armory St. Northampton

Greenfield Recorder Gazette (daily), 397 Main St. Greenfield, Mass.

Belchertown Sentinel (weekly), North Main Street, Belchertown, Mass.

REAL ESTATE AND RENTAL AGENTS
AS OF MAY 1966

Publication of the following list of real estate agents by the Housing Office of the University of Massachusetts does not constitute an endorsement of these firms except to acknowledge that they have signed a statement that they will not discriminate against University persons because of race, religion, color, or national origin. (Note - R indicates rentals; S indicates sales.)

Name	Address	Phone	Type
AMHERST			
William Aubin, Inc.	239 Triangle St.	256-6344	RS
Robert Brown Rl.Est.	320 N.Pleasant St.	253-5555	RS
Raymond Campbell	27 N.Pleasant St.	256-8141	RS
William Ezbicki	894 West St.	253-5198	RS
D. H. Jones	279 Amity St.	256-8181	RS
Kamins Rl. Est.	55 S.Pleasant St.	253-2515	RS
Lincoln Rlty Assoc.	40 Main St.	253-7879	RS
Robert Shumway	309 E.Pleasant St.	253-3995	RS
Wysocki Rl.Est.	15 N.Pleasant St.	253-3630	RS
BELCHERTOWN			
Jackson & Harrington Real Estate	Woodhaven Dr.	323-7754	RS
Shaw Realtors	Main St.	323-7456	RS
Trombly Agency	236 N. Main St.	323-6610	RS
EASTHAMPTON			
O'Brien - Craig Real Estate	103 Main St.	527-0588	RS
Walter Szary Agcy.	77 Main St.	527-9292	RS
Taylor Agency	15 Glendale St.	527-3862	S
York Agency	107 Oliver St.	527-4843	RS
FLORENCE			
Bernard & Joyce Real Estate	9 N. Main St.	584-5123	S
G. A. Finck & Son	63 Main St.	584-1970	RS
GREENFIELD			
Cohn & Levitch	269 Main St.	774-4371	RS
Farrell Realtors	240 Federal St.	773-3686	RS
Kelly Rl. Est.	20 Federal St.	774-4931	RS
Martin Rl. Est.	31 Federal St.	773-7402	RS
HADLEY			
Farrick Rl. Est.	293 Russell St.	584-0374	S
Pioneer Rlty	102 Rocky Hill Rd.	253-2957	RS
Tomlinson Bldrs.	5 Meadowbrook Dr.	253-2084	S
HATFIELD			
Rogaleski Rl.Est.	8 Maple St.	247-3411	RS

Name	Address	Phone	Type
MONTAGUE			
Carroll A. Strysko, Agent	N.Leverett Rd.	367-2361	S
NORTHAMPTON			
Alexander Borawski and Company	88 King St.	584-5555	RS
A-Z Realty	100 Main St.	584-1987	R
Felix Borawski Real Estate	25 Main St.	584-8639	R
Descarage Rl. Est.	23 Munroe St.	584-9033	RS
Hampshire Realty	4 Main St.	584-1913	RS
Klekot Realty	227 Bridge St.	584-3777	RS
Mutter Real Estate	351 Pleasant St.	584-3382	RS
Martha Simison Real Estate	190 Round Hill	584-5367	RS
Skibiski Rl.Est.	N. King St.	584-3428	RS
Catherine Yates	333 Elm St.	584-4006	R
PALMER			
Marion Allen Rl.Est.	215 Ware Rd.	283-6421	RS
SOUTH DEERFIELD			
Strout Realty	Rte. 116	665-2172	RS
SOUTHAMPTON			
Lussier Rl.Est. Brkr.	College Highway	527-4070	RS
Frank Wayne Rltr.	High St.	527-2354	S
SUNDERLAND			
Sanborn Rl. Est.	S. Main St.	665-2154	RS
Skibiski Rlty	Main St.	253-7222	RS
TURNERS FALLS			
Partridge-Zschau,Inc.	Millers Falls Road	863-4331	S
Chester J. Sokolosky, Broker	56 Fourth St.	863-9443	S
WEST HATFIELD			
Yarrows Realty	Box 77 West St.	247-5089	S
WILLIAMSBURG			
Duval Rl. Est.	Cleary Rd.	268-7544	RS

PRIVATE APARTMENT DEVELOPMENTS
AS OF MAY 1966

Within the past few years several garden apartment type developments have been built near to the University. The University does not necessarily endorse these accommodations, but it does attest that the rental agents have agreed to adhere to the University policy on non-discrimination because of race, religion, color or national origin. Specific information about availability, rent, features, brochures, etc., should be obtained directly from the rental agents whose business addresses appear on page 3. (Rental agents are located in the same town as the development unless otherwise indicated.) The developments in alphabetical order are:

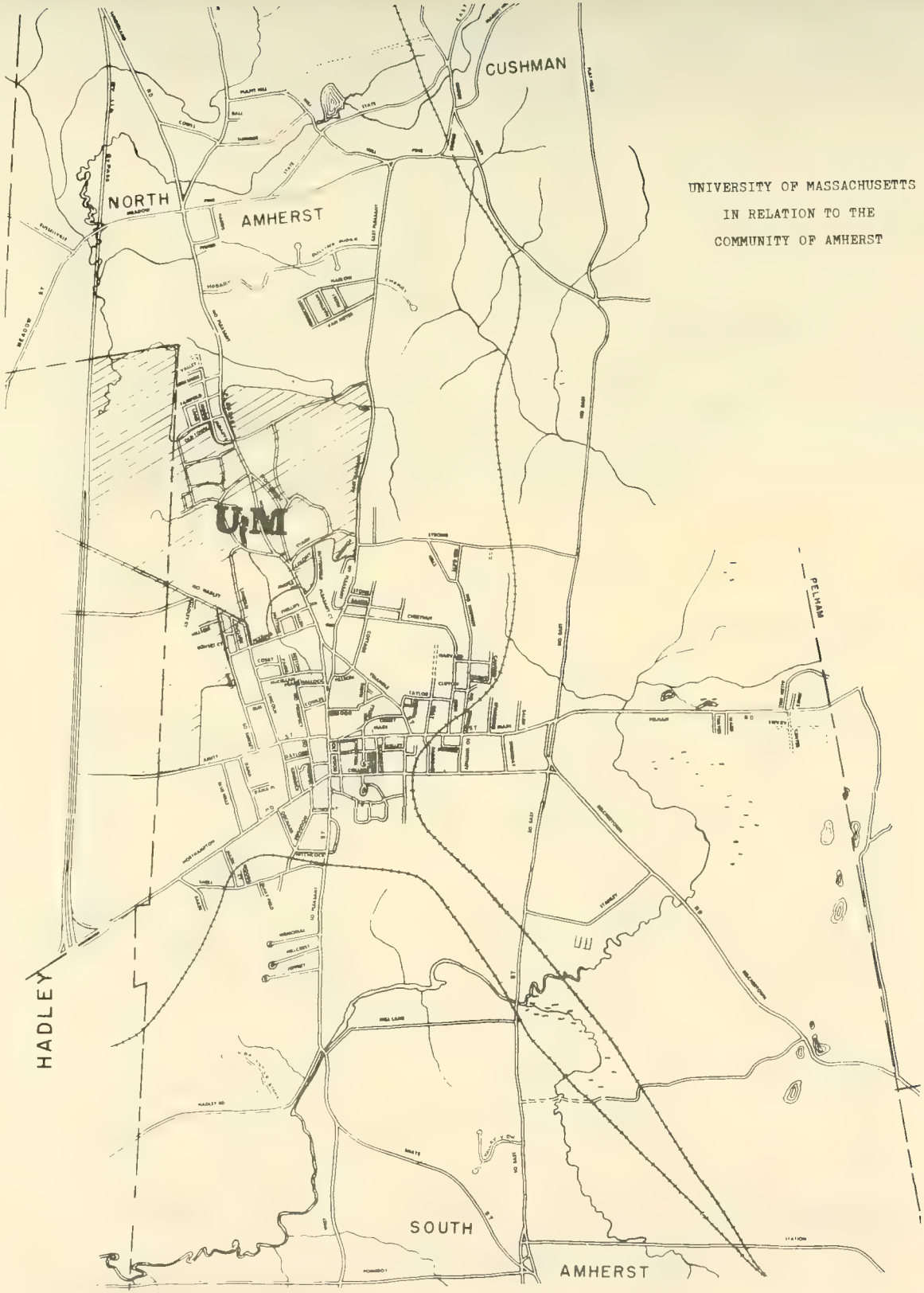
DEVELOPMENT NAME (RENTAL AGENT)	TENANTS ACCEPTED*	(NO. OF UNITS), SIZE, RENT/MO.**
Berkshire Apartments Highland & Smith Sts. Greenfield, Mass. (Cohn & Levitch)	MF,MS,SF, SGM,SGW, SUM,SUW, C.	(14) 1½ Rm (Studio) $125 inc. (14) 4 Rm (1Br.) $160 inc. (15) 5 Rm (2Br.) $180 inc.
Colonial Village 77 Belchertown Rd. Amherst, Mass. (Kamins Real Estate)	MF,MS,SF, SGM,SGW, C.	(26) 3 Rm (1Br.) $110 inc. (45) 4 Rm (2Br.) $130 inc.
Crestview Apartments 1001 N. Pleasant St. Amherst, Mass. (D. H. Jones)	MF,MS,SF, SGM,SGW, SUW,C.	(20) 3 Rm (1Br.) $130 inc. (22) 4 Rm (2Br.) $150 inc.
Crown Point Garden Apartments 370 Northampton Rd. Amherst, Mass. (Skibiski Real Estate Northampton, Mass.)	MF,MS,SF, SGM,SGW, SUW,C,P.	(40) 3 Rm (1Br.) $135 (40) 4 Rm (2Br.) $160
Echo Hill South Belchertown Rd. Amherst, Mass. (William Aubin,Inc.)	MF,MS,SF, C,P.	(36) 5 Rm (2Br.) $175 inc. (6) 6½ Rm (3Br.) $195 inc.
Halcourt Gardens Hallock Street Amherst, Mass. (Robert Shumway)	MF,MS,SF, SGM,SGW.	(4) 3 Rm (1Br.) $135 inc. (12) 4 Rm (2Br.) $150 inc.

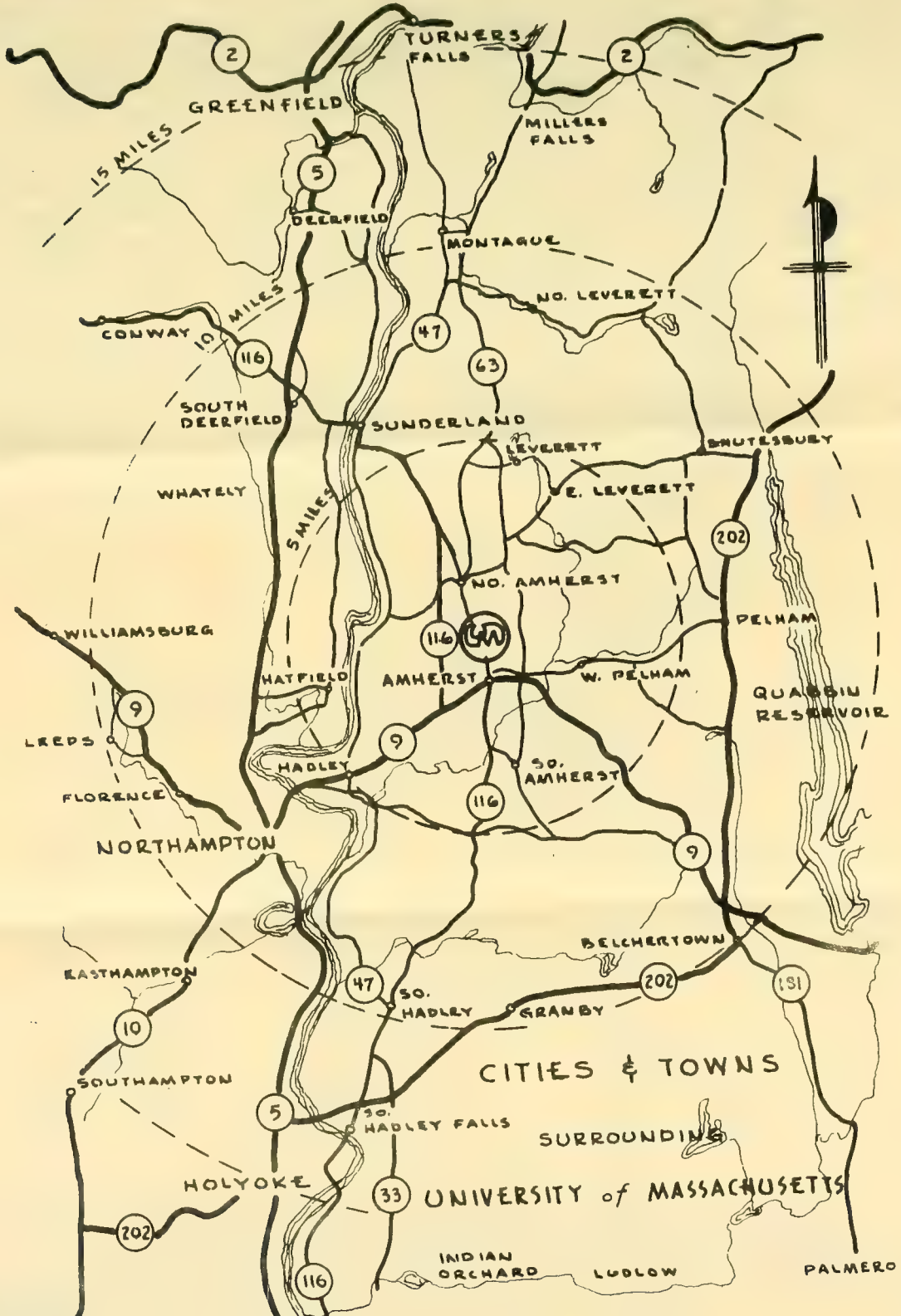
DEVELOPMENT NAME (RENTAL AGENT)	TENANTS ACCEPTED*	(NO. OF UNITS), SIZE, RENT/MO.**
Hillside Apartments Round Hill Northampton, Mass. (Alex Borawski & Co.)	MF,MS,SF, C,P.	(18) 3 Rm (1Br.) $135 inc. (5) 4 Rm (2Br.) $150 inc.
Hobart Apartments Hobart Lane Amherst, Mass. (D. H. Jones)	MF,MS,C, P.	(2) 5½ Rm (2Br.) $150 (8) 6 Rm (3Br.) $165 (4) 6 Rm (3Br.) $175
Mill Hollow Apartments Summer Street North Amherst, Mass. (Jackson & Harrington Belchertown, Mass.)	MF,MS,SF, SGM,SGW, C.	(28) 2½ Rm (1Br.) $95 inc. (28) 3½ Rm (2Br.) $110 inc.
177 Apartments 177 N. Pleasant St. Amherst, Mass. (D. H. Jones)	MF,MS,SF, SGW.	(16) 3 Rm (1Br.) $100
Presidential Apts. 1107 N. Pleasant St. Amherst, Mass. (Kamins Real Estate)	MF,C.	(30) 3 Rm (1Br.) $130 (12) 4 Rm (2Br.) $150
Town House Manor Easthampton, Mass. (O'Brien-Craig Real Estate)	MF,MS,SF, SGM,SGW, SUM,SUW, C.	(8) 1½ Rm (1Br.) $75 inc. (22) 4 Rm (2Br.) $115 inc.
University Park Apts. Main Street Amherst, Mass. (R. J. Campbell)	MF,MS,SF, SGM,SGW, SUM,SUW, C.	(40) 2½ Rm (1Br.) $105 inc. (24) 3½ Rm (2Br.) $130 inc.

* (MF) Married Faculty, (MS) Married Students, (SF) Single Faculty, (SGM) Single Graduate Men, (SGW) Single Graduate Women, (SUM) Single Undergraduate Men, (SUW) Single Undergraduate Women, (C) Children, (P) Pets.

** Bath not included in size description; inc. indicates electricity included.

UNIVERSITY OF MASSACHUSETTS
IN RELATION TO THE
COMMUNITY OF AMHERST




TURNERS FALLS
GREENFIELD
15 MILES
MILLERS FALLS
DEERFIELD
MONTAGUE
NO. LEVERETT
CONWAY
10 MILES
SOUTH DEERFIELD
SUNDERLAND
LEVERETT
SHUTESBURY
WHATELY
5 MILES
E. LEVERETT
NO. AMHERST
PELHAM
WILLIAMSBURG
HATFIELD
AMHERST
W. PELHAM
QUABBIN RESERVOIR
LEEDS
HADLEY
SO. AMHERST
FLORENCE
NORTHAMPTON
BELCHERTOWN
EASTHAMPTON
SO. HADLEY
GRANBY
SOUTHAMPTON
SO. HADLEY FALLS
HOLYOKE
INDIAN ORCHARD
LUDLOW
PALMERO
CITIES & TOWNS
SURROUNDING
UNIVERSITY of MASSACHUSETTS

C

A STUDY OF OFF-CAMPUS HOUSING

AT THE UNIVERSITY OF MASSACHUSETTS

Robert Van Vliet
Staff Assistant to the
Director of Housing
October, 1965

UNIVERSITY OF MASSACHUSETTS
HOUSING OFFICE

MEMORANDUM

To: Interested Persons Date: January 6, 1966

From: Robert Van Vliet, Staff Assistant to the Director of Housing

Subject: "A Study Of Off Campus Housing At The University of Massachusetts."

The attached summary section of the above study is the result of a year long effort to survey the needs and requirements of our University population. Although the information is not necessarily privileged, the author cautions against indiscriminate use and further publication of the data. In many cases it is appropriate and necessary to review in detail the actual research of more than 250 pages to fully understand the data contained in the summary. In addition, it should be clearly understood that the personal impressions, observations, and recommendations of the writer are not necessarily the same as many other persons of the University community nor are they necessarily to be taken as fact that future plans, action, and policies of the University will result as recommended in this study.

The author will be pleased to meet with interested persons to review in greater detail the findings from this study.

Robert Van Vliet
Staff Assistant to the
Director of Housing

RV:sw

A Study Of Off-Campus Housing At The University Of Massachusetts

Introduction

When the author joined the Housing Office staff at the University during the summer of 1963, he was soon impressed with the apparent difficulty students and faculty were having in obtaining suitable housing in the University community. During the summer of 1964 the housing shortage became even more apparent. Despite considerable apartment building activity by private developers, the demand for moderate priced rentals appeared to continue to exceed the supply available. Students continually brought the complaint that the newly built garden apartments, despite their attractive features, were not fulfilling the need. Married students, in particular, commented that they would like very much to live in one of these new apartments, but simply could not afford the rent that was being asked.

Concern about the apparent difficulty of the students motivated the researcher to undertake a depth study of the problem. What were the housing needs of University persons? What informed recommendations could be made to the University and the surrounding communities to remedy the problem? This study, begun in the fall of 1964, now nears completion and represents thousands of man hours of work by many interested persons besides the originator. Actually, this study represents several surveys that are combined in this report. To assist the reader, the significant conclusions for each of these surveys are presented in the next section so that it is not necessary to read the entire study unless the reader is interested in determining how these conclusions were arrived at. The surveys presented are:

I	-	Forced Choice Survey Among Controlled Group
II	-	Open End Survey Among Controlled Group
III	-	Rank Order Analysis Among Controlled Group
IV	-	Open End Survey Among Heads of Departments
V	-	Comparisons of 1963 and 1964 Rents
VI	-	Prediction of the Type and Number of Housing Units Needed by the University

Following these next presented conclusions, the reader is invited to review each individual study. It should be understood that in some instances the conclusions for each study may not completely agree, probably because information was collected from different sources by different methods. In addition, it should be understood that the faculty referred to in this study were professional faculty and staff persons who had joined the University since October 1963; at the time the data was collected these persons had been at the University a maximum of one year.

Conclusions I - Forced Choice Survey Among Controlled Group

1. A strong interest exists in this survey as indicated by a very significant number of persons (74%) who desired to receive the completed results.

2. Of the 443 persons in this survey, approximately ½ are Graduate Students, ¼ New Faculty, and ¼ Married Undergraduate Students.

3. Most (61%) of the persons surveyed were married.

4. Most (78%) of the persons surveyed were men. More women (58%) than men (42%) are Single Faculty.

5. The Mean and Mode for each group indicates that most Married Faculty are in their early 30's. Single Faculty are either in their late 20's or early 40's (bimodel). Married Graduate and International Graduate are in their mid 20's, although more of the latter group may be in their late 20's. Married Undergraduate, Single Graduate Women, and Single Graduate Men are in their early 20's. The compiler suspects that Single Graduate Men and Women probably continue to graduate school directly from their undergraduate studies whereas Married Graduate are more likely to return to graduate school after working for a few years.

6. A very significant number (88%) of All Persons have cars. Most (56%) Single Graduate Women have cars, but a large number do not (44%). Most (56%) International Graduate do not have cars, but a large number of them do (44%).

7. A very significant number (77%) of All Persons believe a car is absolutely or somewhat essential for commuting. Very few persons (7%) consider a car not at all essential. Many people consider a car essential for commuting even though they live less than 2 miles from the University.

8. Approximately half of All Persons live within 5 road miles of the University. Among the following listed groups, approximately half live within the indicated road miles of the University:

Married Faculty	-	3 miles
Married Graduate	-	5 miles
Married Undergraduate	-	6 miles
Single Faculty	-	5 miles
Single Graduate Men and Women	-	3 miles
International Graduate	-	1 3/4 miles. All live within 4 miles.

9. Approximately half of All Persons would be willing to commute up to 9 road miles to the University. Among the following listed groups, approximately half would be willing to commute up to the indicated road miles to the University:

Married Faculty	-	9 miles
Married Graduate	-	9 miles
Married Undergraduate	-	12 miles
Single Faculty	-	9 miles
Single Graduate Men	-	7 miles
Single Graduate Women	-	4 miles
International Graduate	-	3 miles Very few would travel more than 7 miles.

Many University people would be willing to commute 3 to 5 miles more than they now travel if new moderate priced housing were built, if easy road access was developed, and if the Planning Boards in the surrounding communities would permit the apartment construction that is desired by our University population.

10. Married (91%) and Single Faculty (77%) reported that distance traveled to the University is of very little or no interference with their work. These persons live closer and nearly all have cars. Among the student groups, the majority likewise reported very little or no interference, but enough did report some (11% to 27%) or great (4% to 17%) interference with their studies to indicate that for some students, particularly International Graduate, that commuting distance may interfere with education. The writer suspects that those students who must often be at the University to use the library and to conduct research during the evening hours have more interference because of commuting distance.

11. Although rents outside of Amherst are somewhat less, monthly commuting costs plus monthly rent are usually nearly equal to the higher rents in Amherst. Unless future apartment construction that requires commuting can be built to rent at somewhat less or no more than non-commuting apartments, there will not be an appreciable interest from University persons to commute further than they already are. Rent plus commuting costs must be less or no more than non-commuting rent.

12. The Mean of all of the groups surveyed indicated their income from all sources to be in the following ranges:

Married Faculty	-	$451 - $571 monthly, average of $560, The Mode reported more than $700.

Married Graduate	-	$351 - $450 monthly, average of $325. The Mode reported $351 - $450 monthly.
Married Undergraduate	-	$226 - $275 monthly, average of $240, the mode reported $176 - $225 monthly.
Single Faculty	-	$351 - $450 monthly, average of $425, the Mode reported $451 - $575 monthly.
Single Graduate Men and Women	-	$125 - $175 monthly, average of $150, the Mode reported $176 - $225 monthly.
International Graduate	-	$176 - $225 monthly, average of $180, the Mode reported $76 - $125 monthly.

Married Faculty income is more than Single Faculty. Married Graduate income is significantly higher than Married Undergraduate.

13. The Mean of all persons surveyed indicated their monthly housing cost (including utilities) to be in the following ranges:

Married Faculty	-	$116 - $135 monthly, average of $125, the Mode reported more than $160, probably because of home ownership.
Married Graduate	-	$86 - $100 monthly, average of $90, the Mode reported $71 - $85.
Married Undergraduate	-	$71 - $85 monthly, average of $75, the Mode reported $71 - $85. Bimodel $86 - $100. Average is probably influenced by County Circle tenants who pay $45 monthly.
Single Faculty	-	$86 - $100 monthly, average of $95, the Mode reported $101 - $115.
Single Graduate Men	-	$31 - $45 monthly, average of $40, the Mode reported $41 - $55.
Single Graduate Women	-	$41 - $55 monthly, average of $47, the Mode reported $41 - $55.

International Graduate	-	$31 - $40 monthly, average of $40, the Mode reported $31 - $40.

14. The percent of housing cost compared to income for each group is as follows:

Married Faculty	-	22%
Married Graduate	-	28%
Married Undergraduate	-	33%
Single Faculty	-	29%
Single Graduate Men	-	27%
Single Graduate Women	-	31%
International Graduate	-	23%

Married Undergraduate are hardest pressed because a larger percentage of their lower incomes goes for housing. With the possible exception of Married Faculty, the housing cost to monthly income ratios reveal that it would be very difficult for the above groups to pay more than their present rent.

15. With the exception of Married Faculty and Single Graduate Men and Women, some of whom are willing to pay slightly ($5) more per month than their present rental, University persons are not willing to pay more for housing. Future apartments with significantly higher rent will have doubtful acceptance by Married Graduate and Undergraduate.

    If landlords are willing to accept Single Graduate Men and Women in groups as tenants for these higher rent apartments, there probably will be a demand for them.

16. A very significant number (74%) of All Persons and all of the groups are not willing to pay extra rent for such comforts as air conditioning, swimming pools, recreational areas, etc. The one exception is Married Faculty who might (15%) be willing to pay $5 more monthly for these comforts. Most recent apartment construction includes many features not required and demanded by our population. For students, the greatest need is for reasonably equipped, reasonably sized, and reasonably priced apartments.

17. Most (62% - 71%) married persons live in unfurnished housing whereas most (56% - 69%) single persons live in furnished housing. Single Faculty, however are nearly evenly divided between furnished and unfurnished housing.

18. Among married persons there is a slight need for more furnished housing, but among single persons there is a greater need. Future housing should plan for:

Married Faculty	-	80% not furnished
Married Graduate and Undergraduate	-	65% not furnished
Single Graduate Men, Women, and International	-	15% not furnished

19. Among Single Faculty, Single Graduate Men and Women, and International Graduate who prefer furnished housing, there appears to be some interest (17% - 31%) to pay up to $10 more per month for furniture. There appears to be a need for a privately owned furniture rental service in Amherst if it could be provided at moderate cost.

20. 60% of Married Faculty rent an apartment or house when they arrive; the other 40% buy their own home.

Slightly less than 25% of Married Graduate live in University-owned apartments, nearly 50% rent private apartments. Surprisingly, 15% buy their own home.

Nearly 50% of Married Undergraduates rent a private apartment, less than 20% rent a University-owned apartment. The author suspects that most of the Married Undergraduates in University-owned apartments probably live in County Circle which is scheduled to be taken out of service in June of 1966.

Most (61%) Single Faculty live alone in a private apartment.

Most Single Graduate Men are equally divided between renting a private room (40%) or sharing an apartment with others. (40%)

Most (44%) Single Graduate Women share an apartment, some rent a private room (24%).

International Graduate usually (39%) share an apartment.

21. Most (64%) Married Faculty prefer to buy a home. Many of those Married Faculty presently renting an apartment or a house will buy a home within a few years after arriving at the University. There is no increased interest among Married Faculty to rent a University-owned apartment or to rent a private apartment. There will probably be a small increasing requirement for more apartments of the right type for Married Faculty who prefer to rent while they become familiar with the area before they buy their own home.

There is a significant interest among Married Graduate (41%) and Married Undergraduate (38%) to live in a University-owned apartment which results in a significant decrease in the interest for privately owned apartments.

Single Faculty continue to desire to rent a private apartment alone, (64%). No increased interest is shown for University housing. There will continue to be a small increased requirement for more private apartments of the right type for this group.

For Single Graduate Men and Women and International Graduate, housing preference shows nearly the same interest to share an apartment, but shows a significant interest (28% - 33%) in a graduate residence hall. If such facilities were provided there would be a decrease in the demand for off-campus rooms in private homes. Future housing needs are for more off-campus apartments and graduate residence hall accommodations.

The author's overall conclusion is that a significant number of married and single students desire the University to provide housing.

22. Very few persons (0% - 3%) report many difficulties with their landlord. A small, but important, number of Married Faculty (15%), Single Faculty (10%), and Single Graduate Women (18%), have had a few difficulties. The writer suspects that the landlord-tenant difficulties of our University population are not significantly different from any population group.

23. Surprisingly, a comparatively small number of persons (9% - 15%) reported that they were dissatisfied where they presently live. Because of other evidence presented, it is difficult to determine the validity of this conclusion.

24. Married Faculty (60%), Married Graduate (60%), Married Undergraduate (58%), and Single Graduate Men (63%) have had more than ordinary difficulties in finding housing. Single Graduate Women (71%) and International Graduate (70%) have had even more difficulty than the preceding groups. Among all of the groups surveyed, enough persons indicated they had great difficulty (14% - 35%) in obtaining housing to indicate that this is a significant problem.

25. Prior knowledge that they might have difficulty finding satisfactory housing, on the whole, would not have influenced a persons' decision to come to the University. The response to no influence ranges from Graduate Women (37%) to Married Undergraduates (63%). The combined response of "probably and definitely would have gone elsewhere" is Graduate Women (22%), Married Graduate (19%), Single Faculty (12%), Married Undergraduate (10%), International Graduate (6%), Graduate Men (5%) and Married Faculty (5%). The percent range of 27% to 43%

for those groups who responded that they might have gone elsewhere should be of concern to any person interested in the future growth of the university.

To date, housing has not significantly deterred persons from coming to the University, but if this problem becomes widely known and/or corrective steps are not taken soon it will exert a negative influence on persons interested in the University.

26. A very significant number (70%) of persons (probably over 4000 person contacts/year) seek help from the Housing Office. From 1955 to 1965 total student enrollment has increased 165% and off-campus and commuter growth has increased 284%. During this same period, the fulltime Housing Office staff has increased only 60%.

27. Most persons (70%) report the service of the Housing Office to have been very or somewhat satisfactory. Although an important (10%), though not significant, number reported service to be very unsatisfactory, this percentage was far less than those who had reported that they had difficulty in obtaining housing. Until adequate staffing permits the implementation of plans for solutions to the existing problems, dissatisfaction with the services of the housing office will continue.

28. Among married persons, the percentage of children per family is:

Married Faculty	-	no children (16%), 1 child (21%), 2 children (37%), 3 or more children (25%).
Married Graduate	-	no children (46%), 1 child (25%), 2 children (16%), 3 or more children (12%).
Married Undergraduate	-	no children (38%), 1 child (40%), 2 children (14%), 3 or more children (8%).

Married Undergraduates are more likely to have children than Married Graduate; Married Undergraduate income is less as was reported in number 13.

29. Married Graduate and Undergraduate have children who are predominately pre-school age. Apartment construction for this group will not noticeably increase the number of school age children in surrounding communities.

30. Married Graduate (65%) and Married Undergraduate (83%) do not intend to increase their number of children while attending

the University. Few of those children who are born while their parents are attending the University will enter school before their parents leave.

31. Many Married Faculty have 3 bedrooms (32%), but it should be remembered that a significant number (40%) are buying their own home. The ratio of number of children to the number of bedrooms appears to be balanced for Married Graduate. There is some imbalance among Married Undergraduate in the number of children to the number of bedroom ratio. This group probably requires more bedroom accommodations. The author suspects that the present bedroom ratio is probably adequate in the community to provide accommodations for all married persons and their children, but because single students occupy some married housing and/or some married persons with no children occupy housing with more than 1 bedroom, some imbalance exists. Therefore a requirement exists for more 2 and 3 bedroom apartments in the community.

32. Future housing construction should have the following bedroom ratio:

Married Faculty	-	10% 1 bedroom, 15% 2 bedrooms, 40% 3 bedrooms, 35% 4 bedrooms.
Married Graduate	-	5% studio, 40% 1 bedroom, 40% 2 bedrooms, 15% 3 bedrooms.
Married Undergraduate	-	40% 1 bedroom, 50% 2 bedrooms, 10% 3 bedrooms.
Future University Built Apartments	-	50% 1 bedroom, 35% 2 bedrooms, 15% 3 bedrooms.

The existing bedroom ratio in Lincoln Apartments does not effectively meet the demand.

33. Among those persons who required more bedrooms, Married Faculty would probably be willing to pay $10 to $15 more monthly and Married Graduate and Undergraduate probably $5 to $10 more monthly.

34. The combined percentage responses of great and some interest from Married Graduate (56%) and Married Undergraduate (54%) indicates there is significant interest from these persons to live in a modern high rise apartment building located near to the campus.

35. Married Graduate (82%) and Married Undergraduate (87%) believe it is desirable to live near faculty. Many (64%) Married Faculty believe it is desirable to live near married students.

36. A significant percentage (61% - 83%) of Married Faculty, Graduate and Undergraduate prefer to use their own washer and/or dryer within their dwelling. Where possible, future construction should allow the inclusion of privately owned washers and/or dryers.

37. With the possible exception of Married Graduate, this survey reports data from full time students. Data from part-time students who usually work and therefore have different housing problems are not included.

38. Future apartment construction should allow at least 35 to 40 sq. ft. of storage space per apartment unit.

39. Married Graduate (67%) and Married Undergraduate (76%) prefer not to live near single persons. Married Faculty and Single Graduate Men are evenly divided. Single Faculty (68%) and Single Graduate Women (76%) prefer to live near married persons.

40. University persons would prefer (80%) to have some or few neighbors. Future apartment construction that allows close living with a degree of privacy should be well accepted.

41. The futures of University persons are uncertain so most are reluctant to become involved with a lease unless it does not require more than a 30 day notice.

42. As of November 1964, a significant number of Married Graduate (40%) and Single Graduate (62%) have been at the University less than 6 months. The average lengths are:

Married Undergraduate	-	slightly more than a year and a half.
Married Graduate & Single Graduate Men	-	approximately one year.
Single Graduate Women and International Graduate	-	slightly more than half a year.

43. The average additional time that all of the student groups will remain at the University is between 10 to 14 months.

44. Student groups are mobile. Many seek different housing because they are dissatisfied. This trend will continue in the future until many more adequate and reasonably priced rentals are available.

45. If landlords provided better facilities at more moderate rents, their tenants would be less likely to move. This could result in less financial loss to the landlord who might profit more in the long run.

46. Married Undergraduate, who have lower incomes, reported a significant interference (46%) with their studies or grades because of their present monthly income.

Conclusions II - Open End Survey Among Controlled Group

1. A very significant (29% - 61%) percentage of persons have had difficulty in finding housing. Single Graduate (61%) and Single Faculty (48%) have had more difficulty than married students or faculty.

2. A very significant (39% - 49%) percentage of persons believe that rents are too high. Married Students are most concerned about this problem.

3. A very significant (29% - 51%) percentage of persons are concerned with the lack of necessary facilities in their housing. Married Graduate (47%) and Undergraduate (51%) are the most concerned.

4. A significant (23% - 49%) percentage of persons commented on the poor condition of housing. Married Graduate (49%) were the most concerned.

5. A sizable percentage of Married Graduate (25%) and Undergraduate (27%) have had difficulties with landlords and/or realtors. Note - Since the writer previously concluded in the Forced Choice Survey Among Controlled Group that there was not a significant landlord-tenant problem, the writer now concludes that most of the dissatisfication has been directed at certain realtors.

6. A very significant (29% - 54%) percentage of persons indicated that more apartment construction was needed. Single Faculty (54%) and Married Graduate (49%) reported the highest interest.

7. A very significant (34% - 53%) of persons indicated that the University should begin more housing construction. Very little interest (4% - 16%) was expressed in more housing construction by private enterprise.

8. A very significant (20% - 50%) percentage of persons indicated the need for more low rent construction. Single Faculty (50%), Married Graduate (44%) and, Married Undergraduate (43%) expressed the greatest interest.

9. A very significant (20% - 49%) percentage of persons indicated the need for more construction with adequate facilities and/or an improvement in the condition of existant facilities. Married Graduate (49%) and Undergraduate (36%) were the most concerned.

10. A significant percentage of Single Graduate (46%) indicated the need for a University graduate residence hall.

11. A very significant (51% - 76%) percentage of persons had general criticism of the Housing Office. This criticism was further defined as a need for: better service, more rental listings, more general information, more advance information, and frequent revision of rentals listings to keep them current. In general, the criticism was centered on the need for more service from the Housing Office. Little criticism (2% - 8%) was directed at the Housing Office personnel.

Conclusions III - Rank Order Analysis Among Controlled Group

This section attempted to answer two questions, "what types of dwellings are in greatest demand in the University area so that future planning will encourage this type of construction?," and "of all the many factors that go into providing adequate housing for University people, which are the most important and which are the least important?" For definition, the researcher attaches the following significance to the responses:

Extremely significant	-	above 65%
Very significant	-	50% to 64%
Significant	-	25% to 49%
Some significance	-	15% to 24%
Little significance	-	below 14%

1. Among married persons, the Rank Order section indicates that an individual house was the first choice as a dwelling for Married Faculty (75%), Married Graduate (35%), and Married Undergraduate (23%). However, income limitations usually prevent the last two from obtaining a house.

2. In the Total Numbers Responding section, a more realistic interest in the type of housing preferred is shown for the three married groups as follows in ascending order with the groups reporting the least interest first:

Duplex House	-	"significant" 38% to "very significant" 62% for Faculty, Undergraduate, and Graduate.
Garden Apartment	-	"significant" 45% to "very significant" 50% for Faculty, Undergraduate, and Graduate.
Individual House	-	"significant" 38% to 45% for Undergraduate, Graduate, and Faculty.
High Rise Apartment	-	"significant" 26% to 45% for Faculty, Undergraduate, and Graduate.
Cottage or "A" Frame	-	"some significance" of 17% to "significant" 40% for Faculty, Graduate, and Undergraduate.
Multi-family (converted)	-	"some significance" of 15% to "significant" 35% for Faculty, Graduate, and Undergraduate.

One Apart/ landlords house	-	"little significance" of 6% to "significant" 31% for Faculty, Graduate, and Undergraduate.
Trailer	-	"little significance" 3% to 13% for Faculty, Graduate, and Undergraduate.

3. The "significant" and "very significant" interest in duplexes and garden apartments suggests that row houses might be popular if the housing factors subsequently discussed are considered.

4. There appears to be a "significant" interest in high rise apartments, particularly among married students.

5. Nearly all types of housing are acceptable to married students, but particular interest is shown for duplex houses, garden apartments, and high rise apartments.

6. Total cost per month is extremely significant for all of the groups (72% to 91%) and is by far the most important housing factor. Future construction must bear this in mind when planning features that may not be necessary and which may increase the unit cost.

7. The responses to private bath range from a "very significant" 54% to an "extremely significant" 85%. This is the second most important factor.

8. The responses to distance from the University is "extremely significant" for single students (80% and 81%) and is in a "very significant" range of 49% to 61% for the other groups.

9. The responses to the inclusion of a stove and/or refrigerator range from "some significance" of 23% to "extremely significant" 72%. Future construction should include this.

10. Responses to parking space as a factor range from a "significant" 28% to "extremely significant" 73%. Previous data reports the high incidence of car ownership. Future construction should allow for this.

11. With the exception of Married Faculty, a quiet study area as a factor shows a range from 30% "significant" to 66% "extremely significant." Study areas or cubicles should be considered in future construction.

12. Responses to privacy from neighbors (sound proofing) as a factor ranges from a "significant" 34% to a "very significant" 51% with the exception of International Graduates. Sound proofing materials and construction is of great interest. Also, the design of buildings to allow privacy is desirable.

13. The responses to adequate storage is in a range from "some significance" of 17% to "very significant" of 54%. Future construction should include storage lockers and adequate sized closets. See the previous section on amount of storage area required.

14. With the exception of Married Faculty, the other groups reported the inclusion of utility costs as part of the rent in a range of "significant" 34% to "very significant" 51%. If a landlord could pay for utilities on a volume basis at a reasonable per dwelling unit cost, most tenants would probably prefer to have the utility cost passed on to them as part of their monthly rent.

15. The range of responses to adequate number of bedrooms is from a "significant" 45% to an "extremely significant" 68% among married persons. This factor has "little significance" for the other groups.

16. Responses to furnished housing range from a " some significance" of 18% to "very significant" 50% among single persons. It shows "little significance"for married persons.

17. Single Faculty responded that nearness to shopping was a "significant" 28%. The other groups reported in a range from "little significance" of 10% to "some significance" of 22%.

18. Responses to adequate laundry facilities range from "some significance" of 21% to a "significant" 36% among married persons and Single Faculty. This factor is of "little significance" among single persons.

19. The responses to kitchen privileges are in a "significant" range of 28% to 44% for single students and International Graduate; "little significance" was reported by married persons.

20. The data reports that play area for children ranges from a "significant" 30% to a "very significant" 51% from married persons; understandably, it is of "little significance" to single persons.

21. Responses to room to entertain has a "some significance" range of 18% to 20% for single students and has a "significance" of 36% for Married Faculty and 27% for Single Faculty; there is "little significance" reported from the other groups. Future construction for Faculty might consider this factor, but it is not important for the other groups.

22. Faculty responded with "some significance" that neighbors near and neighbors far were housing factors to consider; the response was very similar to either factor. The other groups reported "little significance." The researcher concludes that it is of little importance if neighbors live near or far as long as there is privacy and soundproofing.

23. Although all future construction will be "new," newness of dwelling as a response showed "little significance." Older dwellings with adequate facilities as described above would probably be acceptable to all groups.

24. All groups consider the inclusion of air conditioning to be of "little significance." This is not necessary in future construction if it adds to the unit cost, which it obviously does.

25. Likewise, all groups consider the inclusion of a dishwasher, garbage disposal, and adult recreation area to be of "little significance" as a housing factor.

26. The author's overall conclusion is that University persons are most interested in adequate basic living features. The primary interest in total cost per month precludes the construction of dwellings with facilities and features that may be necessary to meet competition in other urban areas.

Conclusions IV - Open End Survey Among Heads of Departments

1. Most (56%) Heads of Departments have not received reports from new staff members concerning difficulty in finding housing. However, there apparently is a large enough group (31%) that has had difficulty in obtaining housing to warrant some concern.

2. As yet, the housing situation has not interferred (88%) with the recruitment of new faculty. A few (12%) department heads expressed concern that it might in the future.

3. A significant percentage (44%) of department heads have had problems assisting graduate students with housing difficulties.

4. A significant percentage (67%) of the group expressed the opinion that the quality of education has not been influenced by the present housing situation. Many of those who replied to this question did not answer it directly, but instead elaborated on housing problems in general.

5. A sizable percentage (28%) of the group believed that rents were too high.

6. A very significant percentage (75%) indicated that their departments might have future problems because of housing.

7. A significant percentage (54%) of department heads believed that much more low rent housing will be needed for single and married graduate students.

8. A very significant percentage believed that more construction was needed, particularly by the University (50%). Little interest (13%) was expressed for private construction. Some (23%) indicated the need to build graduate residence halls for single students.

9. A significant percentage (40%) indicated the Housing Office was doing a good job. An equal number commented on the need for improvement.

Possible improvements mentioned were, more frequent revision of the rental listings (40%), more available information (24%), and greater assistance for graduate students (24%). Heads of Departments are satisfied with the Housing Office, but they believe more and better service is necessary.

Conclusions V - Comparison of 1963 and 1964 Rents

1. During the above period, 56% of the landlords listed with the Housing Office raised their rents. Although some (11%) landlords lowered their rents during this period, the net effect has been that a substantial number (45%) did raise their rents.

2. The rental increase by the above persons ranged from approximately 13% to 20%. The percentage rent increase has been slightly more for rooms than it has been for apartments and houses.

3. The above percent rent increases were nearly the same for housing more than 4 miles from the University as it was for housing less than 4 miles from the University.

4. Comparison of rents for housing less than 4 miles from the University to housing more than 4 miles from the University reveals that housing less than 4 miles rents for more: approximately $1.50/month more for rooms, $10/month more for apartments, and $25/month more for houses.

5. Although it has not been statistically verified, the author's impressions are that a similar rent increase occurred between 1964 and 1965 as is described in #1 and #2 above.

6. The construction of Lincoln Apartments by the University has had little or no influence in stabilizing rents in the University community.

7. Rents have risen, and will probably continue to rise, because of supply and demand. The demand exceeds the supply; landlords can get more, so they ask more. This trend will continue until private enterprise constructs many more moderate priced apartment units and/or the University constructs more married student housing.

Conclusions VI - Prediction of the Type and Number of Housing Units Needed by the University.

At the date this study was written, this section has not yet been completed. It probably will require a few more weeks of preparation and then it will be inserted into this report at a later date.

The author will attempt to estimate the University's future housing needs based on collected data, other information, and the "Long Range Enrollment Projection" of the Office of Institutional Studies that follows on the next page. The author will attempt to arrive at our needs in numbers of units, types, probable tenants, desired rent ranges, and proximity to the University.

At this time, it is the author's impression that several hundred moderate priced apartment units should be built in the University area each year for the next ten years to keep abreast of our growth.

UNIVERSITY OF MASSACHUSETTS
LONG RANGE ENROLLMENT PROJECTION
1965 - 1974

The long range enrollment projections listed below represent the University's best estimate of probable growth and provide a basis for planning. They are subject to constant review and will be updated as necessary. They do not include Boston or the Medical School enrollments.

SEPTEMBER	UNDERGRADUATE	STOCKBRIDGE	GRADUATE	TOTAL
1965	8,825	500	2,200	11,525
1966	9,685	550	2,600	12,835
1967	10,740	560	3,000	14,300
1968	11,730	570	3,500	15,800
1969	12,720	580	4,000	17,300
1970	13,710	590	4,500	18,800
1971	14,700	600	5,000	20,300
1972	15,700	600	5,500	21,800
1973	16,700	600	6,000	23,300
1974	17,700	600	6,500	24,800

Office of Institutional Studies
University of Massachusetts
November 1964

The position of influence that the University holds in the surrounding community is one of increasing importance. It can be expected that as the University continues to grow in the next decade, that what the University does, or does not do, may have considerable effect on our neighboring communities, particularly Amherst. What was once a small rural town is now becoming a small urban city. As changes occur, there are bound to be conflicts between those who desire the status quo, a legitimate desire, and those who desire to bring about dramatic change, again, a legitimate desire.

It appears to the writer that the decision for urban growth and change was not made recently, but actually was made many years ago when the University was charged with the responsibility to expand to nearly 25,000 students by the mid 1970's. The decision to change has already been made; it is extremely unlikely that it will ever be reversed.

The author believes that the University must be concerned with its' relations with its' neighboring communities, but its' primary concern always has and always will be the needs of the students that it educates. If community desires and student needs are in conflict, then the University administration must have considerable justification before it can with good conscience deny the needs of its' students.

The writer concurs that the University should not encourage undergraduate students to marry, which might result if large numbers of low rent apartments were available, but it can safely be assumed that some undergraduates will continue to marry and that a significant number of our increasing graduate enrollment will be married. Though these persons will represent a smaller percentage compared to the single undergraduate enrollment, their increasing numbers have already required and will continue to require attention to their unique housing needs. The most pressing need appears to be financial. Married graduate and undergraduate students are unable to pay much more for housing from their modest incomes, indeed the present housing expense to total income ratio makes them hard pressed. It is probable that future married student incomes will gradually rise, but probably so will rents and other living expenses.

For several years now the writer has supported the University policy of requesting private enterprise to house most of the faculty and married student population. The author still believes, but with increasing reservations, that in theory it is better for private enterprise to house much of our population than for the University to assume this obligation. Our primary purpose is to educate, not to house. If private enterprise will or can construct

the right type of facilities, the right number, and at the right rental, then the University and the community would probably be better served by not constructing more on-campus married student apartments.

The community was asked to provide housing for most of our married students at the time when it was the consensus that this was their desire. Unfortunately, despite the considerable construction activity of the past few years, our needs are not being met. The author believes this is because community desire and student need conflict and because the University has not adequately informed the community as to its exact requirements and future needs. It may be difficult for many persons to visualize the University's needs ten years from now; if the Graduate School alone grows from its present approximate 2500 students to 6500 students as projected, this single group would require more than twice the number of housing units present in the University community at this time. This estimate does not include the housing unit requirements for faculty, staff, and single and married undergraduates. Shortly, the author intends to submit a projection of our needs that will become part of this study.

For the past few years, it has been the writer's impression that the University has exerted some small direct influence on the community to encourage the construction of the right type and number of housing units. But, during this period since the last decision on housing policy enrollment projections have increased and the community has not yet responded sufficiently. The solution is not easy. If the University takes a more direct role in bringing about change, it may be criticized by the community; but if it does not take a more active role, it also will be criticized by some members of the community and by the University population. If the University builds more married student housing, it may be criticized by the community; but again if it does not build more married student housing it will be criticized by some members of the community and by the University population. Can a compromise policy be reached that will please all persons concerned in the future? This critic thinks not. Since our purpose is to educate our students and housing is a prerequisite of this function, the writer believes the University should now become more involved in bringing about the required changes.

The author believes that this study substantiates the conclusion that there is considerable interest within the University community for construction of more married student housing by the University. If the University does not concede to this interest, it must provide workable alternate solutions to solve the present and future needs of its students and faculty. It is extremely difficult to convince a married student, who is dissatisfied with his present housing, who has been waiting for a Lincoln Apartment for over one year, who now must wait for

another year because "your name hasn't yet worked its way up high enough on the waiting list," who questions why the University appears to be so eager to build high rise residence halls but not married housing, that the University administration really cares about his problem.

It is also the author's impression that perhaps the community is also beginning to express desire for the University to provide more housing, although he has not yet substantiated it. Although, theoretically, it is better for private enterprise to house much of our population, the reporter has doubts if the University can or should expect the community to do the entire job. Perhaps a reappraisal of the University's position on this matter and what, if any, direct influence we should exert is overdue.

To date the job has not been done. It will and must be done in the future. Who will do it and how will it be done; the community, the University, or both? Somebody must do it soon.

1. This study should be reproduced in its entirety in a limited number of copies for internal University use. If necessary, other copies could be reproduced that would exclude the lengthy sections of data at the end. Persons interested in the complete data could review it at the Housing Office.

2. From the study, the most significant findings should be rewritten and published in a 10-15 page phamplet for wide distribution. Final determination on what should be included in the phamplet should be with Dean of Students Field. This phamplet should then be distributed to:

   a. Persons who requested a copy of the results in the survey.

   b. Town officials in all of the surrounding communities.

   c. Local and other lending institutions who might be interested in financing housing projects.

   d. Local and other builders and construction companies who might be interested in building housing projects.

   e. Local newspapers, with instructions that interested persons can secure a copy from the Housing Office.

   f. Local and other community organizations that might have an interest in housing.

   g. Local realtors and real estate brokers.

   h. Other interested persons who ask for a copy.

3. The problem of how best to provide for married student housing should be fully explored with the hope of making necessary policy changes and decisions by April 1966. This problem should be given high priority for this academic year.

4. The University should actively seek out and inform private enterprise, the surrounding community, and community officials of our problem. The University

must find out how much, if any, support it can expect to receive from these people during the next decade. Since University persons might be willing to travel farther than they presently do, communities in addition to Amherst should be specifically contacted. This information should be available by the spring of 1966 for planning purposes.

5. In addition, it is important to determine the mood of the people in the surrounding communities. The University population has expressed their desire that the University should build more married student apartments. How do the people feel, particularly in Amherst? The consensus can be obtained by any of the following methods:

   a. votes at town meetings

   b. referendum or question on the ballot at the next election

   c. survey of propertly owners and/or registered voters on a simple IBM card questionnaire that would quickly be processed by data processing

   d. polls taken by outside agencies such as the League of Women Voters

6. The University should adopt and publicize the following policy at this time, though not necessarily in these exact words:

   a. The University will probably grown from its present enrollment of slightly more than 12,000 to approximately 24,000 by 1975.

   b. This growth will require the construction of many new housing units of all types. At this time, the greatest need is for moderate priced apartments for married student couples.

   c. The University hopes that private enterprise in the surrounding communities will provide these facilities. Regardless of the Universities future decisions about building more on campus housing, there probably will be an increasing need for private housing.

7. The Housing Office should investigate sources of possible financial assistance for apartment construction. Specifically, certain FHA programs of the federal government should be reported on and this information made available to interested persons.

8. Builders, contractors, and lending institutions should be encouraged to consult with the Housing Office to obtain specific advice and recommendations for the construction of future housing. The Housing Office should render this service when asked.

9. The Housing Office should seek information from <u>all</u> sources to answer three questions:

   a. Can the University build married student apartments with adequate facilities to rent at less cost than private enterprise?

   b. Is the unit cost per apartment more or less for high rise construction?

   c. Is high rise construction a feasible solution?

   (Modest budget appropriations may be needed for field work travel)

10. If it is determined that the University can build apartments for significantly less than private enterprise, the University should than begin plans to construct married student apartments in stages and in numbers slightly less than the numbers that interest indicates.

11. Investigation should be begun for the necessity and desirability of constructing a single graduate residence hall and/or the conversion of existing undergraduate housing. Although the interest appears to be higher, if possible, the author recommends that commencing September 1966 provisions should be made to house full time single graduate students, 20% of the men and 25% of the women, in undergraduate residence halls. Graduate women should be given first consideration. If possible, approximately 50% of the number of rooms needed to house international students should be held available until August 1st and should be assigned only to newly arriving single international students until this date.

12. The present University-owned apartment assignment procedure should be reviewed and possible policy changes should be enacted that would take place before the spring of 1966. Possible changes for consideration are:

a. Reduce the faculty occupancy limit to two years.

b. Faculty will no longer receive priority over married students in Lincoln Apartments.

c. Married Undergraduates, particularly those with children, should be given equal priority with married graduate students.

d. Married couples with two or three children should be given priority over couples with one child for two bedroom apartments in Lincoln.

e. If there are no faculty waiting for a University Apartment after July 31st, vacancies should be offered to married graduate students.

f. Married students living in County Circle Apartments before May 1, 1965 should be given priority over all other applicants for Lincoln Apartments when County Circle is taken from student use in June of 1966.

13. Though it is probably desirable, any off-campus inspection or approval system should not be enacted until housing supply and demand becomes better balanced. Inspection and approval would attack the effect (i.e. quality), but not the cause (i.e. lack of housing). Solving the effect could result in increased rents from better housing plus landlords who are still able to rent their non-approved housing outside of the University.

14. In view of the large number of automobiles that faculty, graduate students, and married undergraduates apparently own, future University parking space plans should be reexamined to determine their adequacy.

15. Amherst town officials should be advised about how many additional automobiles the projected University growth might bring.

16. The Housing Office should revise its present information and literature and publish it in a booklet form.

17. The author recommends that the Graduate School mail this housing information along with their other information to all interested applicants rather than have persons write to the Housing Office after they have already contacted the Graduate School. It should be clearly stated that because of the University's expansion:

a. A critical housing shortage exists off-campus.

b. This critical shortage is even worse during the late summer months, particularly for housing within walking distance.

c. The number of applications for Lincoln Apartments will require the student to wait over a year from the time of application.

18. Dean Field's suggestion that married students be given a housing stipend so that they may better afford higher priced apartments should be fully explored.

19. The legal aid assistance program recently proposed by the Dean of Students should quickly be implemented to assist students with housing questions of a legal nature.

Acknowledgments

The originator expresses sincere gratitude to the many persons who assisted in the formulation, preparation, collection and interpretation of data, and publication of this study. Without their combined effort of well over a thousand man hours, this study could never have been accomplished.

Information about graduate student enrollments furnished by Edward Moore, Dean of the Graduate School has been invaluable. Peter Park of the Sociology Department deserves most sincere thanks for his suggestions in developing the survey format. To Raymond Castelpoggi of the Office of Institutional Studies the author gives his thanks for his suggestions and advice on the format of the completed survey. Special gratitude is appropriate for Gail Oakland, Head of the Department of Statistics whose advice on statistical procedures throughout this past year were invaluable. The writer appreciates the comments and suggestions from the many students that the early form of the survey was tested upon. To Fred Utley's Mail Room staff he acknowledges the extra effort that was required to prepare the survey for mailing.

During the early stages of data preparation by the Research Computer Center, Tom Sullivan's assistance and advice was most appreciated. Later programming assistance and data processing by Norm Menegat of the Data Processing Center was invaluable. The programming assistance for the final run of the data by John Goda of the Research Computer Center was very appreciated. It should be noted that without data processing, this survey could not have been completed.

Special acknowledgment and appreciation is extended to David Foren, the researcher's student assistant. Without Dave's assistance in the preparation of most of the data during the last seven months, this survey would never have been completed. Deep gratitude is directed to Susan Wanat, secretary, who typed most of the written material and offered her invaluable assistance throughout the project despite her many other duties. To Nancy Farwell, Barbara and Phyllis Polchlopek, and Joseph Duke, student assistants in the Housing Office, goes the author's appreciation for capably assisting in the preparation of this survey in its final form. Finally, he offers his thanks to the other members of the Housing Office staff who have been inconvenienced by the extra effort required to publish this survey.

The Research

The previous section that includes the author's conclusions, personal impressions, and recommendations is a condensation of the following detailed surveys and studies. The following sections of more than 250 pages described the researchers procedures, his analysis of the data collected, and his conclusions in greater detail.

Those persons who do not have these last sections attached to the first section of the study are invited to review the research at the Housing Office.

ANNUAL REPORT
June 30, 1966
Bureau of Government Research
University of Massachusetts

I TOTAL APPROPRIATIONS (excluding 01 and 02 personal services)

1963-64	1964-65	1965-66
$6,785	$6,350	$7,975

II PERSONNEL

	Director	Assistant Director	Staff Consultant	Statistician	Research Associate*
Sept. 1963	1	2		1	
Sept. 1964	1	2		1	
Sept. 1965	1	2	1	1	1

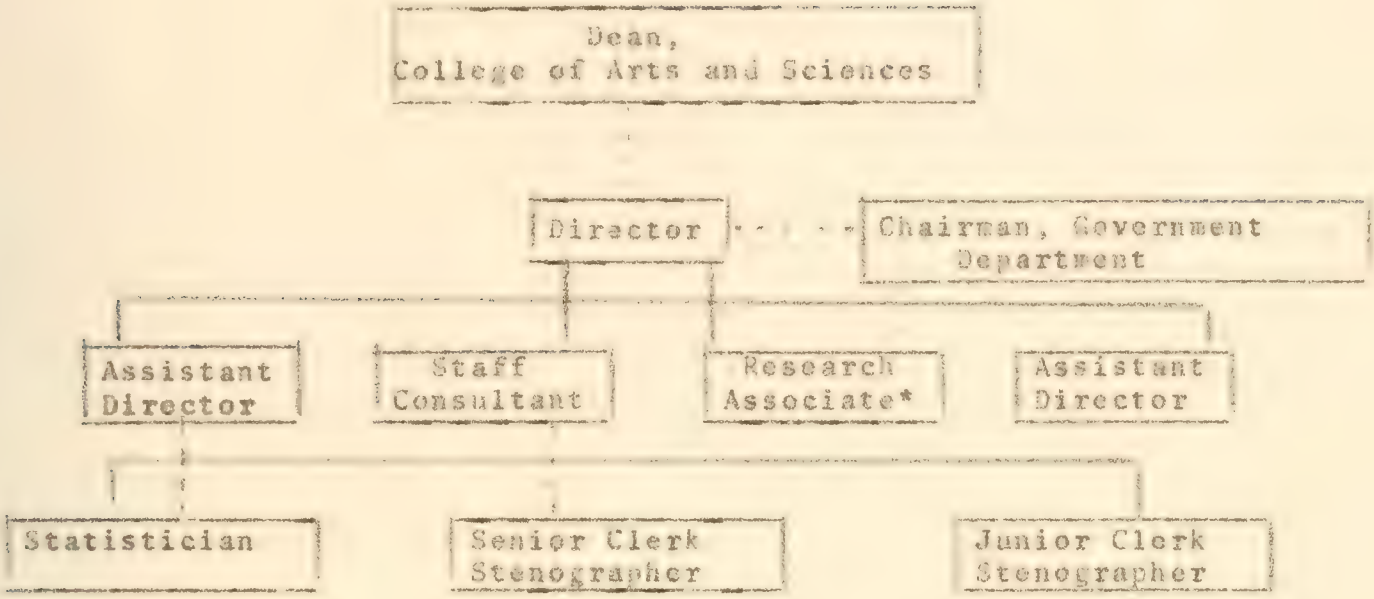
	Senior Clerk & Stenographer	Junior Clark & Stenographer
Sept. 1963	1	1
Sept. 1964	1	1
Sept. 1965	1	1

Staff:

Irving Howards, Director
Edwin A. Gere, Jr., Assistant Director
Robert A. Shanley, Assistant Director
Jamieson Reid, Staff Consultant
Carmen D. Saso, Research Assistant
Sheldon Goldman, Research Associate*
Mrs. Ruby Martin, Senior Clerk & Stenographer
Nancy Tulenko, Secretary

* Assigned from the Government Department on a part-time basis.

III ORGANIZATIONAL CHART



Solid Line _____ Immediate Supervision
Broken Line ------- Intermediate Supervision
*Assigned from the Government Department

IV CLIENTELE

A. Students

a. Government majors instructed by Bureau personnel:

September 1963 (100), September 1964 (45) September 1965 (26)

b. Number of students taught:

September 1963 (130), September 1964 (50), September 1965 (44)

During 1965 Bureau personnel taught 94 students in Government 218 (Political Parties and Pressure Groups) in two sections. Students were also advised by Bureau personnel in connection with their graduate studies, senior honors work, and their requests for information on federal and state government career opportunities. The Bureau library

of some 4000 books and pamphlets was utilized by students and faculty of the government and other University departments, by civic organizations and by local government officials.

B. Service to clientele groups

As part of the Bureau's continuing service function to Massachusetts state and local government, a Governor's Conference on Education was held at the University of Massachusetts in January, 1966. Planning, program and arrangements for the conference were handled by the Bureau and the Lieutenant Governor's office. The principal purpose of this conference, attended by over 200 of the Commonwealth's leaders in education, business, labor, government and civic affairs, was to discuss the implementation of the Willis-Harrington Report on Massachusetts public education.

Bureau personnel have worked in an advisory capacity with state and local officials on several projects. In recent months Bureau staff members and University administrators have been exploring with Holyoke municipal officials the feasibility of examining that city's governmental structure and functions. Bureau staff members have also consulted with the North Attleborough board of selectmen concerning the formation of a multi-purpose regional planning district, have submitted a memorandum to the Commonwealth's public library association concerning an analysis of yardsticks utilized in the state aid formula for local public libraries, and have consulted with a number of professional governmental groups with respect to conferences on the University campus.

Another public service function performed by the Bureau personnel has been that of speaking on public issues. Bureau members have delivered lectures and/or speeches on the Commonwealth's public service, municipal home rule problems, tax needs, town government structure and other issues at meetings of such civic and fraternal groups as the Massachusetts Selectmens Association, town finance committees, local Leagues of Women Voters, Lions Clubs, and the American Association of Women's Clubs. Bureau staff members have also worked with the University of Massachusetts Cooperative Extension Service and the Massachusetts Homemakers Council, serving as resource personnel and panelists in their 1965 study of county government.

The constitutional home rule amendment which goes to the voters next November raises many questions about its practical implementation. In June the Bureau Director participated in the program of a special conference on home rule sponsored by the special legislative commission on home rule. Bureau members are also on the local program committee for the National Municipal Leagues' national conference on "The Future State of the States" to be held in November, 1966, in Boston.

C. Other Professional Activities

The Bureau Director served on a University Committee to explore the possibility of establishing a law school on the University of Massachusetts-Amherst campus.

Bureau personnel attended conferences of the International Conference on Public Personnel Administration, the American Political Science Association, the American Society for Public Administration, as well as a number of conferences of professional and civic associations in Massachusetts.

V PUBLICATIONS

Monographs:

1. The Massachusetts Constitution: A Problem in Simplification (in press)

2. The Legislative Process and Divided Government: A Case Study of the 86th Congress (in press)

3. Some Notes on Regionalism with Particular References to New England (in press)

4. The Challenge of Interdependence (Proceedings of the 1965 Governor's Conference on State-Local Relations)

5. Massachusetts Town Expenditures, 1964

Articles:

"Massachusetts Passes Law on Public Bargaining," National Civic Review, Vol. LV, No. June, 1966, pp. 332-333.

Research and Publications in Process:

The Massachusetts Racial Imbalance Law: Its Efficacy and Implications for Urban Public Education

The Sales Tax and the Massachusetts Legislature

Governor's Conference on Education (Proceedings of the 1966 Conference held at the University of Massachusetts)

Party Competitiveness and Local Power Structures in the Massachusetts Communities

Municipal Services and Local Government Power Structures

Special Legislation and Legislative Process

Collective Bargaining in Massachusetts Local Government

New England Regionalism

Massachusetts Town Expenditures, 1965

VI., VII MAJOR ACCOMPLISHMENTS, SPECIAL PROJECTS

During the past year the scope of the Bureau's operation expanded in several ways. Its organizational location within the University's administrative structure was altered, its library resources were reviewed and improved so as to accommodate its research program, and possibilities for cooperative research with other New England University Bureaus were explored.

A. The Bureau's Relocation in the College of Arts and Sciences

From 1956-1965, the Bureau structured as a separate department with the director reporting to the University provost. In July, 1965, the Bureau became a unit of the College of Arts and Sciences, with the director reporting to the Dean of the College of Arts and Sciences, through the chairman of the Government Department. Consequently, most Bureau staff members now hold concurrent academic appointments in the Government Department and have teaching responsibilities in their fields of specialization. The Government Department in turn has shared the time of one of its professors with the Bureau in research assignments. Office space and library resources have been made available to two other Government Department professors for the summer of 1966. The new relationship with the Government Department has resulted in the joint submission to the Dean of the College of Arts and Sciences by the Government Department and the Bureau of a proposal to join the Inter-University Consortium for Political Behavior, associated with the Survey Research Center of the University of Michigan.

B. Improvement of Bureau Library Resources

Since the success of every research is vitally dependent upon the breadth and quality of its library resources, a major effort was made during the past year to improve the Bureau's library facilities. Its classification system was modified, hundreds of publications were either eliminated or were transferred to Goodell library, and an indexing system was initiated. When this operation is complete index cards of the Bureau's 450 books and 3500 pamphlets, reports and monographs will be made available to Goodell Library and to the University community. In its efforts to build up its aquisitions and information upon Massachusetts state and local government, the Bureau has converted one of its rooms into a depository exclusively for Massachusetts documents and studies. In addition, a newspaper clipping service on Massachusetts politics and government was initiated for the benefit of researchers, students and faculty.

C. Cooperative Regional Research

Possibilities for interstate cooperation in New England have recently been enhanced by new federal programs such as the Public Works and Economic Development Act of 1965 and the Higher Education Act of 1965 which encouraged broader federal-state cooperation and multi-state regional planning. Responding to opportunities in these programs, the Bureau has been a leader in exploring the possible establishment of a New England Research Center, either as an association of the six bureaus of government research or as a broader entity embracing private as well as public universities and colleges in New England. The University of Massachusetts Bureau sponsored in March a conference for the six New England Bureaus of Government Research at Amherst to examine the possibilities of establishing such

a center, without sacrificing the responsibilities of each bureau in servicing and studying its own state needs. Bureau staff members have commenced research in the concept of regionalism with a pilot study which examines the meaning and viability of New England regionalism, and seeks to identify its successful ingredients.

VIII FUTURE PLANS AND NEEDS

In the years ahead the Bureau looks forward to a broadened and enriched program which it expects will be of value to both the governmental and academic communities in the Commonwealth. Specific features of the program will include an augmentation of research activities to be accomplished by present staff. Another development will be the expansion of those service functions which may properly be of value to the University, the Bureau and its clientele organizations. It is also expected that there will be an intensification of professional relationships at the municipal, and especially the state, levels of government as well as a continued staff commitment to teaching responsibilities in the Government Department.

The philosophy of the Bureau is that any state university bureau of government research worthy of the name must include the entire Commonwealth as its legitimate concern. Such a policy must focus the Bureau's interest upon the metropolitan areas that lie east of Worcester (where 65% of the population live), as well as upon the problems of the western part of the state. Such a broadening of the Bureau's constituency will inevitably increase the research opportunities, publications output and service responsibilities of the staff. It will also increase opportunities for the Bureau to provide much needed legitimate services to the state administration

and the General Court in dealing with state problems.

In order to obtain the goals of this philosophy, it is planned to augment existing staff with additional research-oriented personnel to continue to cooperate with the Government Department with loans of staff; to increase the Bureau's identification with state and national research organizations and to enlarge the Bureau's research holdings and facilities. A concerted effort will be made to investigate the availability of grant monies to implement the Bureau research goals, and to make policy makers throughout the state aware of the Bureau's availability for legitimate research and consulting activities.

ANNUAL REPORT

(covering the period July 1, 1965 to June 30, 1966)

OFFICE OF INSTITUTIONAL STUDIES
UNIVERSITY OF MASSACHUSETTS

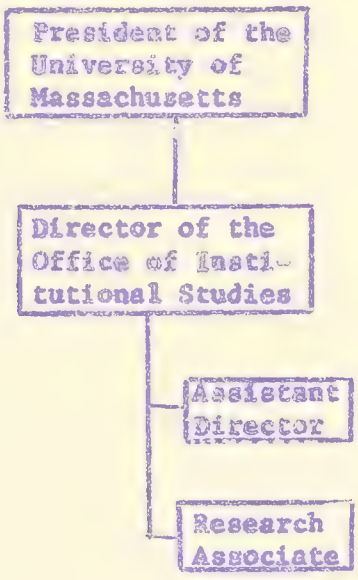
Office of Institutional Studies
University of Massachusetts
Amherst
June 30, 1966

ANNUAL REPORT
OFFICE OF INSTITUTIONAL STUDIES
UNIVERSITY OF MASSACHUSETTS
(covering the period July 1, 1965 to June 30, 1966)

I. Appropriation for the fiscal year 1963-64, 1964-65, 1965-66. The Office of Institutional Studies does not have a separate appropriation of its own but rather comes under the general appropriation of the Office of the President. In past years funds provided under this arrangement have been most adequate for the total operations of this Office of Institutional Studies. It is hoped that similar support will continue throughout 1966-67.

II. Personnel. In September 1963 the personnel of the Office of Institutional Studies consisted of a Director, Assistant Director, and Senior Clerk and Stenographer. In September 1964 the personnel included a Director, Assistant Director, Research Associate, and Senior Clerk and Stenographer. In September 1965 the staff included an Acting Director (Dean of Administration), Assistant Director, Research Associate, and Senior Clerk and Stenographer. At the present time the position of Research Associate has been transferred to the Bureau of Government Research with the understanding that this position will later be added as the need arises and such position becomes available. A new full-time Director will begin his duties on August 15, 1966. At the present moment (June 30, 1966) the staff personnel consists of an Acting Director, (Dean of Administration), Assistant Director, and Senior Clerk and Stenographer.

III. Organization Pattern. The Director of the Office of Institutional Studies reports directly to the President of the University of Massachusetts. He is assisted by an Assistant Director. A Senior Clerk and Stenographer serves the professional staff. When the position of Research Associate is restored this person will report to the Director.



. Clientele Served. The Office of Institutional Studies serves a wide range of clientele, both within and outside the University of Massachusetts. It stands ready to assist both faculty and administration, as well as students, in the continuing analysis of our institutional practices and procedures and to exchange data with others engaged in similar activities. As an administrative unit of the State University, the Office also cooperates as a research source with various public and private boards and commissions.

A. Within the institution itself the Office served the following people or groups during the year 1965-66 either as a data source or in an advisory capacity:

1. President of the University of Massachusetts
2. Chancellor of the University of Massachusetts-Boston
3. Provost
4. Secretary
5. Treasurer
6. Dean of Administration
7. Personnel Office
8. Admissions and Records Office
9. Housing Office
10. Alumni Office
11. Campus Security Office
12. Faculty Senate
13. Student Senate
14. University Editor
15. Deans and Department Heads
16. University Planning Office

B. Since the Office of Institutional Studies handles all requests for general information from outside the University it provides data for literally hundreds of individuals and groups. The most prominent of these agencies or individuals were:

1. U. S. Office of Education
2. American Council on Education
3. National Education Association
4. American Association of University Professors
5. Higher Education Facilities Commission
6. Massachusetts Budget Bureau
7. New England Board of Higher Education
8. M. M. Chambers, Visiting Professor of Higher Education, School of Education, Indiana University
9. The World Almanac
10. Encyclopaedia Britannica
11. Association for Institutional Research

V. Professional Activities and Publications. Aside from publications which will be mentioned later, personnel of the Office of Institutional Studies served as members of several University committees which included:

1. Master Planning Committee
2. Law School Committee
3. Re-accreditation Committee
4. Director of Institutional Studies Selection Committee
5. University Enrollment Growth Committee

In a similar vein, staff members provided data and related material for the

Faculty Senate in the areas of fringe benefits and curriculum evaluation as this group turned its attention to an analysis of policies and procedures in these two areas.

The Assistant Director served as an advisor to the Student Senate in this body's appraisal of the University's publications policy and also the regulations regarding alcoholic beverages on campus.

Several publications were produced by the Assistant Director. These included:

1. Average Net Cost to State of Instruction Per Student, Land Grant Institutions, 1963-1964.

2. Analysis of the Determination of the Maximum Salary of Members of the Faculty and Administration at Public, State-Supported Colleges and Universities.

3. Analysis of Faculty Salaries, February 1966, University of Massachusetts-Amherst.

4. Analysis of Faculty Salaries, September 1965, University of Massachusetts-Amherst.

5. Analysis of Faculty Salaries, February 1966, University of Massachusetts-Boston.

6. Analysis of Faculty Salaries, September 1965, University of Massachusetts-Boston.

7. A Geographical Analysis of Massachusetts Residents Attending the University of Massachusetts-Amherst, Fall 1965.

8. A Geographical Analysis of Massachusetts Residents Attending the University of Massachusetts-Boston, Fall 1965.

9. FACT BOOK, University of Massachusetts.

10. Largest Library Holdings in North American Colleges and Universities, by Total Number of Volumes, 1964-65.

Although not directly responsible for the total publication, the Assistant Director provided considerable statistical material for the Annual Report of the President, the Campus Guide Manual, the University Graduate and Undergraduate Catalogs, and numerous budget analyses and studies. In like manner, data was also presented by the Office for visual aid presentations before various committees of the General Court of the Commonwealth.

VI. Major Accomplishments. While it is difficult to draw a distinction between major and minor accomplishments the major duties performed by the Office of Institutional Studies during the past year might include:

1) Compilation, publication and distribution throughout the Amherst and Boston campuses of a University of Massachusetts FACT BOOK.

2) Responses to approximately 300 requests for information about the University from agencies and individuals outside the campus.

3) Preparation and analyses of data for members of the administration and faculty in such areas as enrollment growth, tuition and fees, net cost per student, faculty salaries, state support of higher education, faculty profiles, library growth and development, student publications, and University-State relations.

4) Distribution to pertinent members of the administration of all legislation passed by the General Court of the Commonwealth having an effect on the University of Massachusetts, in particular, and higher education, in general.

5) Preparation of position papers dealing with legislation introduced in the General Court which had a direct bearing on the institution (autonomy and faculty salaries).

I. Special Projects. Due to the main fact that the Office of Institutional Studies was staffed with only one full-time professional employee (Assistant Director) during most of the past year, it was virtually impossible to undertake any "special" projects in addition to the normal work load. With the hiring of a full-time Director, it is hoped that additional projects can be undertaken. Perhaps it might be proper to view the publication of a University FACT BOOK as a "special" project since no such publication existed prior to Office of Institutional Studies' action this year.

II. Future Plans. At the present time it is meaningless to predict future plans for the Office since the new Director, arriving in mid-August, will have his own long-range goals and programs of implementation. However, it can be assumed that the Office of Institutional Studies will continue to serve in its present functions the needs of a growing University while at the same looking for new areas of endeavor and concentration.

UNIVERSITY OF MASSACHUSETTS

ANNUAL REPORT OF THE DEAN OF WOMEN

1965-66

1. Appropriation

	1963-64	1964-65	1965-66
Services - Non Employees	$ 27,256	$ 37,885	$ 50,694
Travel	300	300	545
Printing	-	210	-
Repairs	125	170	130
Special Supplies	175	250	650
Office & Administrative	750	500	900
Telephones	-	1,350	2,115
Equipment	221	500	91

2. Personnel

	1963-64	1964-65	1965-66
Dean of Women	1	1	1
Asst. Dean of Women	1	1	1
Asst. to Dean of Women	-	1	1
Heads of Residence	13	15	17
Graduate Counselors (part-time)	2	4	5
Senior Clerk & Steno.	1	1	1
Junior Clerk & Steno.	1	1	1

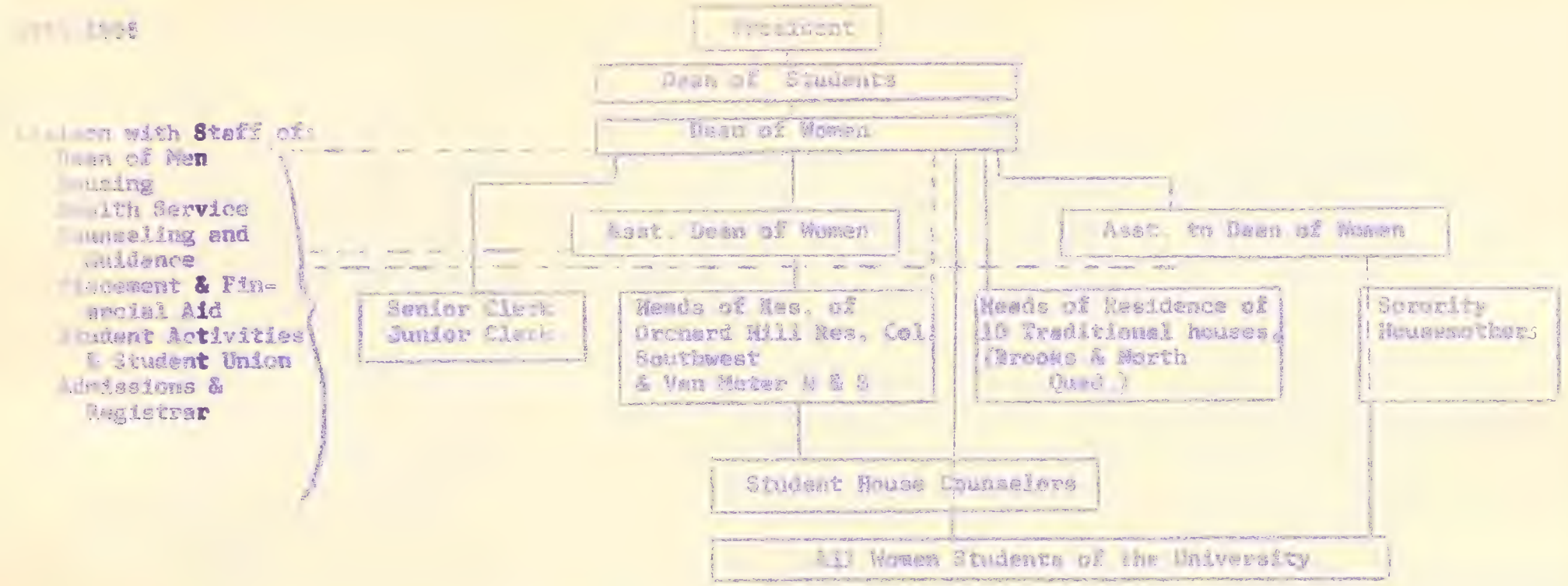
3. Organizational Chart (see next page)

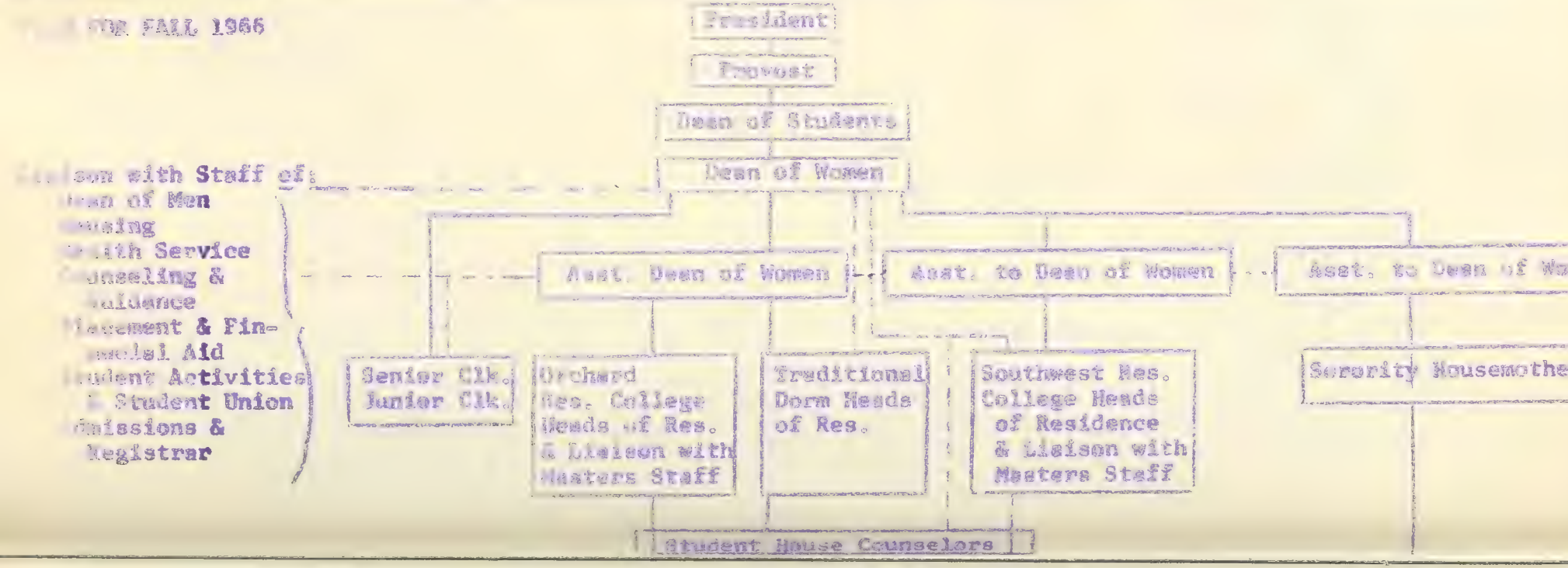
4. Students or Clientele

	1963-64	1964-65	1965-66
Undergraduate Women	2,757	3,360	3,861
Special or N. C.	113	125	184
Stockbridge	20	20	24
Graduate	339	500	700
	3,229	4,005	4,749

65-66 Approx.

87% of undergraduate women lived in 17 residence halls
8% of undergraduate women lived in 10 sororities
5% of undergraduate women were commuters


President
Dean of Students
Dean of Women
Liaison with Staff of:
Dean of Men
Housing
Health Service
Counseling and Guidance
Placement & Financial Aid
Student Activities & Student Union
Admissions & Registrar
Asst. Dean of Women
Asst. to Dean of Women
Senior Clerk
Junior Clerk
Heads of Res. of Orchard Hill Res. Col. Southwest & Van Meter N & S
Heads of Residence of 10 Traditional houses (Brooks & North Quad.)
Sorority Housemothers
Student House Counselors
All Women Students of the University


President
Provost
Dean of Students
Dean of Women
Liaison with Staff of:
Dean of Men
Housing
Health Service
Counseling & Guidance
Placement & Financial Aid
Student Activities & Student Union
Admissions & Registrar
Asst. Dean of Women
Asst. to Dean of Women
Asst. to Dean of Women
Senior Clk.
Junior Clk.
Orchard Res. College Heads of Res. & Liaison with Masters Staff
Traditional Dorm Heads of Res.
Southwest Res. College Heads of Residence & Liaison with Masters Staff
Sorority Housemothers
Student House Counselors

5. Professional Activities

Having served in recent years on State and National Committees of the Women Deans and Counselors and of AAUW I am grateful for the experience it has given me both in acquaintance with personnel and the sharing of common concerns and resolutions of problems. At present I am resisting assuming heavy outside professional duties because of the continual needs on our own campus. I maintain active membership in AAUW, in Massachusetts Association of Women Deans and Counselors (serving on the program committee) and in the National Association of Women Deans and Counselors. I serve on the Dean's Advisory Committee to the Massachusetts Society for the University Education of Women and as an Incorporator of the Horace Smith Fund, both scholarship granting groups. Through attendance at the Convention of the National Association of Women Deans and Counselors (this spring in Washington, D.C.) I also keep in touch with the national Councils of Mortar Board and Alpha Lambda Delta.

6. Major Accomplishments

The Dean of Women's Office serves as the focal point for information, counseling, records and administration of women's affairs - to extend and help women fully to utilize their opportunities for education.

The professional staff in the office and the Heads of Residence in 17 women's dormitories, whom we select and train, serve as "generalists", counseling and serving hundreds of students whose need for information, encouragement and help is "normal" and usually temporary. With close colleague relations with Health, Mental Health, Counseling Center and other specialists we refer to them the smaller number of students in need of particular or continued help. The Dean of Women's office and Heads of Residence are very frequently called upon for background information by the specialists and by faculty members, advisors, scholarship donors, or employers.

It is important for the University, and for women students themselves, to be cognisant of the varied and changing roles of women so that in the perspective of their whole lives the years in college can be most valuable in terms of their personal and social growth as well as intellectual achievement. It is our objective to help women students to fulfill their best potentialities and establish firmer commitments to good values and standards.

Values, standards and University expectations, particularly as reflected in women's residence regulations, have been under attack this year in colleges across the country (an objective of the National Student Association). Beginning with SWAP Conference, October '65, the University of Massachusetts experienced this attack spearheaded by the University Reform Committee, a small unrepresentative but vocal group of men and a few women, encouraged and augmented by some faculty members. The Dean of Women's staff, especially the Heads of Residence and to some extent the student Counselors, bore the brunt of criticism, much of it exaggerated and unjust.

Reflection, objective evaluation, and the setting of new objectives is essential to keep any department viable and responsive to changing needs. An effort has been made for this to be a continuing process in our work and an annual review and revision of women's regulations with elected women student leaders has in the past striven to preserve values with flexibility. In view of the new student protest, however, and lacking administrative support, I conceded that liberal changes were indicated. Agreeing that it is educationally sound for an adult to carry responsibility for his own decisions and the consequences of those decisions I have joined others on a Student Life Committee to recommend that University of Massachusetts students be regarded as responsible young adults and be given freedom for decision-making including self-imposed curfews. Whether our students are ready for this or not I feel there is no turning back. There is urgency for University administration, student personnel staff, and faculty to work together to help students to respond wisely to this new freedom and assumption of adult roles.

A major gain in the University's stance with students can be achieved if we can implement present agreement that all residences for men and women, including fraternities and sororities, will close to non-residents at the same closing times (midnight Sunday-Thursday, one o'clock Friday and Saturday) and that the University grant no parietal privileges. These policies and a new emphasis on more student participation in house government combined with our present well-developed residence hall counselor program can benefit student life.

The "Residential College" is proving to be an exciting concept and a successful way of enriching the residence environment with cultural activities and of providing particular advantages of more personal association of students and faculty. It is gratifying to note that many students are increasingly more at ease with faculty and are responding to opportunities for stimulating conversation and programs. The special talents of Mrs. Teresa Zakrzewski brought distinction to the University and to our staff with her publication of "Black Nightshade", prison memoirs of Rose Vail. Numerous student discussions with the author and Professor and Mrs. Vail related to this event and the subject of Communism added significant values to the Orchard Residential College program.

The traditional residences for women have continued many social and cultural activities conducted by student committees advised by the Heads of Residence and student Counselors. Faculty are frequent guests for social affairs or talks and discussions. See attached reports of typical "traditional houses", Lewis and Crabtree. Resourceful Heads of Residence and imaginative student committees have done exceedingly well with meager funds and limited equipment to conduct valuable activities in the women's residences. More money is needed. We look forward to new developments in the distribution of vending machine profits as a source of funds to augment and extend residence hall cultural and educational programs.

A major achievement each year is to secure well qualified women as Heads of Residence and to maintain the high calibre of this professional staff in our women's residences. Experienced Heads of Residence were helpful advisers to seven new members who were added to fill vacancies by retirement and to staff new residence halls. Desirable as it is to have faculty closely related to residence halls it is to be realized that they have neither the time, training, nor interest to carry on the individual counseling as needed, day or night, at unpredictable times throughout the year. It is the Head of Residence who, working with her Counselors, knows the residents well enough to give guidance in the frequent emergencies and problems of students as they adjust to the freedom and demands of the University, especially in their first year away from home. Members of the Counseling staff have contributed, along with other resourceful people, in the Dean of Women's staff meetings. The attached memorandum from Dr. Aapy and Mr. Doude, who continued discussions with one group of Heads of Residence, is quoted as it expresses very well the significance of their roles.

The addition of Miss Margaret Ford (July '65) as Staff Assistant has been a great asset particularly with office interviews and also as advisor and liaison with sororities and Panhellenic, relieving Mrs. Gonon and me for frequent conferences and meetings both in and away from the office and for administrative work.

Office procedures were complicated this year because both Senior and Junior clerks were new and transient and because of moving the offices to a different location at an awkward time. A reorganization of files and development of some streamlined procedures have been accomplished, however, and competent new secretaries are now established.

Respectfully submitted,

Helen Curtis
Dean of Women

attachments:
Reports of two sample "traditional dormitory" Heads of Residence
Copy of memo from Dr. Aapy and Mr. Doude
Directory of women's residences
List of women student leaders
Report of the Assistant Dean of Women

Annual Report of Head of Residence
Lewis House 1965-66

Lewis House is one of the older houses on Campus and has a special charm. Our pine panelled center is a warm welcome to all who enter. The student rooms are tinted in various colors and the closets are generous with stout doors. The girls especially like the odd shaped rooms - for they are more interesting when decorated. Most of our girls spend all four years in Lewis by choice.

For the past eight years we have been over-crowded. Many double rooms have been tripled. However, we have been encouraged to believe that the normal capacity can be expected during the year 1966-1967.

There were 39 elected officers in Lewis House this past year who took charge of the programming and business affairs of the dormitory. There were seven counselors, who lived on the corridors with the girls and acting as friends, counselors and advisors. The council worked closely with the girls on the corridors and the Head of Residence. The aim of all was to create a pleasant home away from home - a place in which to relax, live, and study. The elections of officers for next year and the passing of the proposed budget took place in May. They will be ratified in September.

Many activities took place in Lewis House last year such as breakfasts, dinners, suppers, receptions, parties, teas, open house, and annual House picnic.

The program of visiting professors was a very successful one. The following faculty and staff members took part in the discussions and panels: Dr. Gass, Dr. Stanfield, Professor Dilkes, Dr. Burke, Dr. Wellman and Miss Antunez. Movies of India and Germany were shown by foreign and American students followed by discussions of the cultural and academic outlook in the two countries.

The Scholarship Chairman did an excellent job of stimulating not only the Freshmen but also some of the upper-class women. Many of the upper-class women gave their time and energy to help the Freshmen with their academic problems.

Lewis House also took part in the Women's Sing, won first place on the Homecoming float parade and had a wonderful evening of folk singing.

As Heads of Residence, we act as a coordinator between the students, the Counselors and the various departments and Deans on campus. Without our cooperation, many departments such as Housing, Maintenance and Health and Safety would be helpless. We are available at all times to respond to the needs of the students to talk over their problems, to tell of their achievements or just to share their daily experiences.

Respectfully submitted,

Marion Comaine

Report of Head of Residence, Crabtree House
1965-66

The past year, seen in retrospect, was a busy, interesting one at Crabtree. As a resident couple, we faced a new experience which was challenging for us and for the dorm. With the Counselors, we developed a well-coordinated team which carried us through the year with good results. They were a particularly fine group of girls with whom we formed lasting friendships. They worked hard to help make the experiment work; I doubt that it would have been so wonderful without their maturity and sense of responsibility, as well as their lively personalities. The girls in the dorm responded well to having a couple, and a good rapport was established. By Christmastime, we knew practically all the girls by name, and found our living room frequently filled with enthusiastic students. They came to talk, listen to our record-player or borrow classical records for Music courses, to borrow books from our library (predominantly that of two English majors), to ask advice, report on their latest boyfriends, or ask to be taken to the Infirmary. (We had three cases of appendicitis during the winter!) The Counselors kept high standards on their corridors, reflected in the fact that quiet hours were seldom broken. The dorm became a good place to sleep or sleep, or to work numerous personal problems. The Counselors helped many girls in decision-making situations which enabled growth, while I helped quite by being a sounding-board, never a "director", "mother", or authoritarian". In counseling, more serious problems occasionally emerged, and in two cases I was working closely with Dr. Janowitz and Mr. Goods. This was invaluable experience in learning the art of referrals and in becoming a key counselor who works primarily with the environment of the dormitory and the relationship between the individual and her environment. I feel that these contacts with professional counselors are a "must" for the enrichment of the training of the Head of Residence. Often we would be closest to the actual living situation of the distressed student, hence the most available helper during crises. Our Counselors showed great perceptivity in dealing with emotional unrest on their corridors. One girl, for example, showed marked improvement academically, socially, and emotionally after working intensively with Mr. Goods and me during the year. This was a happy outcome to a difficult period.

My husband, though busy with his graduate work, participated when he could in many a creative bull session, helped frequently with advice on English papers and speeches, and often treated a group of girls to large ice-cream sundaes. I found it possible to counsel girls privately in my inner apartment at all hours of the night and day. The kitchen held a ready pot of coffee and standard equipment - a Kleenex box for those occasional emotional situations. We came to enjoy our life immensely and to look forward to another rewarding year.

Among successful dorm activities carried out largely through efforts of dorm committees and guidance from Counselors and Head of Residence, the following were notable:

A mock football game in the fall, held in the middle of the North quad with Thatcher men, complete with male "cheerleaders" dressed in outlandish female gear, a cheering section for each "team," and many spectators.

A faculty dinner with hostesses for each guest - the girls themselves made everything, including my favorite homemade spaghetti recipe and homemade cookies; the after-dinner coffee hour included the entire dorm and was a great success;

A coke party in the [illegible] "Meet Mr. Silva" coke party and well attended;

A float, which was small and rain-drenched, but supported loyally by its architects, for the homecoming parade;

A trim-a-limb party at Christmastime, with cocoa and cookies;

A dance, with rented jukebox which was popular;

A faculty dessert (ice-cream sundaes, again!) in the spring;

A surprise bon-voyage party for us given by the whole dorm in which they presented us with handmade tokens and won us completely by reciting poetry written for the occasion and singing songs adapted especially to the moment.

Academically, we had an excellent record, with 40 girls on Honors, for [illegible] we had an Honors Tea, traditional in most dorms. The Scholarship Committee [illegible] lists of the majors in the house, so that girls who were having difficulty could seek out help. The dorm was proud to tie for second place in the [illegible] averages of women's dormitories, we were lucky to have several Phi Beta Phi [illegible] two Phi Beta Kappas, and one new Mortar Board, our House Chairman.

Education goes forward in dormitories in all fields. In many, [illegible] informative lectures scheduled by committees which cover a wide range. We were appreciative of the time devoted by the Health Service to show two movies, one on venereal disease and one on narcotics, with discussion sessions lasting on into the night. These are valuable, and often very well attended.

All in all, we had an excellent experience, with unusual cooperation and high dorm spirit. There was only one case where a girl might have gone to Judicial Board, had she not withdrawn from the University. Otherwise, all discipline was handled capably and well by the House Council. Very few infractions were noted, and Council meetings rarely dragged on and on over trivia. They were mainly planning sessions for the weeks to come, with good discussions of counseling techniques. The main work of the Head of Residence, I found, was in communication with this key group. Together we sorted out the important matters of the week, and then they went out and implemented ideas gained through this teamwork.

I found that our Head of Residence Staff meetings with the Dean of Women were very helpful to me in their airing out of ideas and problems, in their frequent use of resource people, and in the constant and unfailing support they provided for each of us. It is a pleasure to have the opportunity to work with this fine group of people.

Respectfully submitted,

Mrs. Ann G. Silva

COPY

UNIVERSITY OF MASSACHUSETTS

MEMORANDUM

From: John J. Douds and David N. Aspy June 1,1966

To: President John Lederle

Subject: Heads of Residence

After having worked closely with the Heads of Residence for the past year we have come to appreciate both the importance and demands of this position. We wish to acknowledge their valuable contribution.

A Head of Residence carries many roles; everything from counselor, group leader, advisor, administrator, scapegoat, and even an occasional janitorial task. They are often bombarded by conflicting demands from students, administration, faculty and parents. It is common to feel pulled upon in several different directions simultaneously. They exist in the "front lines" and often bear the brunt of student unrest and conflict which comes with a University in transition. It is not unusual to be up until early morning with an upset student while all others are safely separated from their responsibilities. Unfortunately they are taken for granted and their beneficial effects often remain behind the scenes.

In short, the position entails vast responsibilities and competencies and yet it receives less constructive support than the more spotlighted positions within the University's community. If the University is to realize the huge potential of this position it behooves all concerned to understand the role and invest it with the recognition it deserves.

John J. Douds
Senior Counselor

David N. Aspy
Psychological Counselor

JJD/ga
cc: Dean William F. Field
Dean Helen Curtis

UNIVERSITY OF MASSACHUSETTS WOMEN STUDENTS' RESIDENCES, 1965-66

House	Phone	Campus Extension	Head of Residence	House Chairman
Dormitories				
Arnold	3-9230 6-6855 3-9177	545-2300,2301	Georgie Bostder (Mrs. G. Macdonald) (545-2482)	Mary Knight '66
Brooks	6-6889 6-6835	545-2410,2411	Emily Rugg (Mrs. A.F., Jr.) (545-2538)	Janet Deckers '66
Crabtree	6-6881 3-9140 6-6891	545-2302,2303	Ann Silva (Mrs. Walter) (545-2469)	Eileen White '67
Dwight	3-9256 3-9149	545-2304,2305	Winifred Field (Mrs. Richard) (545-2365)	Elizabeth L. Johnson '67
Hamlin	6-6866 3-9207 3-9237	545-2306,2307	Elsie Rich (Mrs. Mulford E.) (545-2720)	Judith A. Belcher '66
Johnson	3-9109 3-9103	545-2308,2309	Elsie Johnson (Mrs. Herbert) (545-2721)	Mary McAdams '66
Knowlton	6-6840 6-6801 6-6859	545-2510,2511	Pamelia DeTour (Mrs. Alfred E.) (545-2409)	Mary Sweeney '66
Leach	6-6848 6-6893	545-2512,2513	Marjorie Clough (Mrs. Bradford) (545-2468)	Ruthanne Batcheller '66
Lewis	6-6847 3-9260	545-2514,2515	Marion Cumming (Mrs. R. Stuart) (545-2270)	MaryLou Hummer '66
Mary Lyon	3-9163 3-9173 3-9206	545-2516,2517	Anne Maher (Mrs. R. J.) (545-2722)	Susan Heine '66
Orchard Residences				
Emily Dickinson	6-6843 3-6824	Ass't: Mary Dunn 545-2853	Frances Pennington (Mrs. George D.) (545-2166)	Sally Shea '66
Eugene Field	3-9117 3-9162	Ass't: Carolyn Potter 545-2878	Theresa deKerpely (Mrs. Eugene) (545-2191)	Nancy Jansen '66
Southwest Residences				
A ground floor	545-2129		Kathryn Whitaker (Mrs. E.H.) (545-2867)	Daria Montanari '66
second floor	545-2103			
third floor	545-2107			
fourth floor	545-2109			
B ground floor	545-2197		Elvira Suitor (Mrs. E.F.) (545-2869)	Natalie Clapp '66
second floor	545-2189			
third floor	545-2182			
fourth floor	545-2193			
D ground floor	545-2609		Marion Sargent (Mrs. M.L.) (545-2879)	Marie Arruda '66
second floor	545-2680			
third floor	545-2676			
Van Meter North	3-9276 6-6830	545-2644	Ella E. Marshall (Mrs. Elliott) (545-2021)	Linda Ferreira '67
Van Meter South	3-9129 6-6832 3-9191	545-2645	Lucy Messer (Mrs. William) (545-2478)	Linda Leen '67

Office of the Dean of Women: 545-2240,2598,2847. Dean of Women, Helen Curtis; Ass't. Dean, Isabelle Gonon (Mrs. Maurice); Staff Ass't., Margaret Ford; Secretaries, Ann Gates, Linda Tuckosh (Mrs. J. R.)

UNIVERSITY OF MASSACHUSETTS
Reference List of Women Student Leaders for 1965-66

Women of the Student Senate:
(*Women's Affairs Committee Members)
*Karen Gavin '66, V-Pres. Senate
*Catherine Walsh '66, Chm. Women's Affairs; Bette Chambers '67
*Janet Charles '67; Edith Doyle '67
*Ellen Fiske '66; Jacqueline Hall '68
Elaine Lipson '67; Vera Mysyshyn '66
Mary O'Connell '67; Linda Perlstein '66
*Michele Potvin '66; *Carole Rudge '67
Linda Shapiro '66' *Bonnie Stokes '66
Margaret VanderBurgh '67

Non-Senate Members of Women's Affairs Committee:
Brenda Bryan '66; Janet Charles '67
Michele Feldman '67; Alice Hill '66
Carol Holtzman '66, Mary Mart '66
Mary Ann McAdams '66; Gail Moran '66
Brenda Neugeboren '66

Women's Judiciary Board:
Marion Smith '66, Chief Justice
Bette Butler '67; Susan Neet '67
Leslie Lazin '66; Stephanie Leach '68

House Chairmen:

Arnold: Mary Knight '66
Brooks: Janet Decker '66
Crabtree: Eileen White '67
Dwight: Elizabeth Johnson '67
Hamlin: Judith Belcher '66
Johnson: Mary Ann McAdams '66
Knowlton: Mary Sweeney '66
Leach: Ruthanne Batcheller '66
Lewis: Marylou Hummer '66
Mary Lyon: Susan Heins '66
Van Meter North: Linda Ferreira '67
Van Meter South: Linda Leen '67
Emily Dickinson: Sally Shea '66
Eugene Field: Nancy Jansen '66
Southwest A: Daria Montanari '66
D: Natalie Clapp '66
D: Marie Arruda '66

Inter-dorm Council:
Dorothy Gorenflo '67

Big-Little Sister Chairman:
Judith Maxwell '68

Sorority Presidents:
Alpha Chi Omega: Sharon Merrill '66
Chi Omega: Frences-Dee Burlin '66
Iota Gamma Upsilon: Elaine Malley '67
Kappa Alpha Theta: Ellen Garvey '66
Kappa Kappa Gamma: Patricia Seibert '66
Lambda Delta Phi: Evelyn Weaver '66
Pi Beta Phi: Bonnie Stokes '66
Sigma Delta Tau: Elizabeth Veneri '66
Sigma Kappa: Gail Moran '66
Sigma Sigma Sigma: Carole Walkwitz '66

Panhellenic Council:
Jacqueline Curns '66

Phi Beta Kappa, Nat'l Schol. Honorary:
Carol Hermsdorf '67; Marilou Prentice '66; Janet Kay Smith '66; Joyce Stowell '66

Phi Kappa Phi, Nat'l Schol. Honorary:
Joan Bracker '66; Patricia McNally '67
Flora Mueller '66; Stephanie Rowland '66; Janet Kay Smith '66

Mortar Board, Senior Honor Society:
Roberta Bernstein; Joan Bracker;
Mary Ann Brady; Elaine Corsi;
Karen Garvin; Sandra Haynes;
Nancy Jansen; Teresa Joseph;
Lesley Lagin; Mary Ann McAdams;
Daria Montanari; Gail Moran;
Anne Schwalenstocker; Janet Kay Smith
Elizabeth Veneri; Carol Woodcock

Scroll, Sophomore Honor Society:
Velma Alayon; Linda Andrews;
Donna Beers; Cheryl Bogle;
Linda Carnevale; Lorraine Contuzzi;
Deborah Dearborn; Jane Delano;
Denise Deleeuuw; Claudia Demsky;
Celine Dumont; Cheryl Eliot;
Mary Vennessey; Althea Gould;
Joanne Gould; Carmen Grosse;
Cynthia Hunt; Karen Kane; Pamela
Kopp; Edwina Kuja; Elaine Laukkanen;
Judith Maxwell; Linnea Nelson
Elizabeth Neufeld; Auralia
Paliobeckas; Julia Quincy; Phyllis
Risser; Cynthia Roseborough
Sherry Rudsten; Paula Russo;
Bonalyn Sampson; Karen Schmidt;
Marianne Schmoyer; Kathleen Smith;
Barbara Sullivan; Brenda
Swithenbank; Debra Tildan

Annual Report of Assistant Dean of Women
1965-66

I regret the delay in submitting this report. I hope I bring to it the objectivity gained from a holiday completely removed from the arena.

It has been a year of political activism on the part of a vocal minority of students, faculty, and staff members. The impetus seems to have come from the National Student Association on the one hand and, on the other hand, from the so-called S committee of the A.A.U.P. which enlarged its concern about academic freedom for faculty to include a concern for the civil rights of students. Existentialist anxiety is in the air. Mass media have contributed to a growing concern for "authenticity" and the "freedom to learn". Certainly the very real problems of civil rights for negroes and the Berkeley incident have contributed to the assumption that protest rather than consensus is the way to effect change.

It became clear at S.W.A.P. that the chief target for the year here, as in many colleges and universities over the country was to be an attack against women's regulations and women's "subservience to the establishment". The session on women's residence regulations should have been recorded for its example of group process in the hands of skilled social scientists. A pandora's box was opened. The University Reform Committee held open meetings with faculty participation and encouragement. Though these were poorly attended by women students. Residence Hall coffee hours lead by members of the University Reform Committee kept the issues alive. The concept of a University acting in loco parentis was challenged as indeed it has been challenged in court rulings in some states in recent years. Challenged too were University rulings forbidding the consumption of alcoholic beverages on University property or in any dwelling other than home where students are in residence.

A Reform Committee petition asking for the abolition of curfews was signed by an overwhelming majority of women students on the plea that "even if you don't want freedom for yourself you don't want to spoil it for others."

Certainly it is naive to think that by requiring curfew the University is legislating morality. Our concern has been for the safety of students and the protection of property. If the University takes the responsibility of providing a night attendant for both men's and women's residence halls, security of person and property can be provided for all students without the need of a curfew. If the University feels that a curfew is necessary for Freshman during this period of transition to the University with all the pressures which they must meet, it is equally important for freshman men as for freshmen women to have a curfew.

Faculty Senate Committees formed under the Senate by laws encountered Student Senate resistance to changes which gave them less proportionate representation than had been accorded them in the past. The formation of a joint Ad Hoc Committee of the Faculty Senate and the Student Senate has resulted in a dialogue which has served as a learning process for its members. In the meantime the status of the R.S.O. Committee has been left in limbo and the mechanics of carrying out the involved charge of the University Discipline Board remain still to be worked out. The frame of reference of the Discipline Board has been taken almost verbatim from the report of the S committee of A.A.U.P. with provision for a legal or faculty advisor for the appellant and for a tape recording of proceedings as well as for a mandatory review of all student suspensions recommended by an administrator or by a lower court.

In many ways it has been heartening to have students, faculty and administrators carry on a dialogue. This can contribute to increased understanding of all segments of the University and to the maturity of our students. It may be too that at this moment in the development of the University a dramatic confrontation was necessary.

What is disheartening is the little time in which to help students to provide for adequate orientation to sudden change. The absence of many women student leaders during the summer makes plans for implementation necessary without taking them adequately into the planning.

The denigration, by the University Reform Committee, of Heads of Residence as a group on the basis of isolated incidents which were accepted by some activists as the norm did not give an example to students of suspended judgment pending examination of the validity of the source and the scholarly weighing of evidence. The roles of the Heads of Residence as advisors to individual students and to student leaders in their houses rather than as enforcement officers needs to be better understood by the campus at large. Certainly this office has emphasized in our training of Heads of Residence their advisory capacity. They are resource people to whom students can look for help in finding answers to questions from the most trivial to the most critical. The Heads of Residence, recognizing a student's possible need of more clinical or special help than they can give, suggest other agencies for referral. Their role with counselors and elected officers should be advisory only. They take no part, nor are they physically present, in disciplinary deliberations conducted by a house council of students.

Student agitation has helped staff members as individuals evaluate the extent to which they have been facilitators of democratic process. This is good. On the other hand there should be a greater recognition of their effectiveness in reducing the very sense of "alienation" that students are lead to expect they should feel in a multiuniversity. Students can sense that they are people close at hand who care and who are available to help them to look for ways to meet situations at whatever hour of the night they seek them out. The morale of Heads of Residence as a group is worthy of more consideration even if only for the effect on the morale of a house in which elected officers can meet their responsibilities with enthusiasm because of the confidence the Head of Residence places in them and in which counselors can respond positively to her calm and confident approach.

As I worked as the liaison with Orchard Hill from this office I was gratified to note the strides made in the Orchard Hill Residential College this year with each Residence Hall developing a style of its own. I can attest to the enthusiasm, the imaginative thinking and the cohesiveness of the preceptor and fellows, the Head of Residence and the student committee chairmen of Eugene Field with whom I met each week. Dr. Varley from the outset has respected the responsibility of the Heads of Residence to this office at the same time as they functioned as an integral part of the total house organization spearheaded by the preceptor. Where lines of communication have been provided at all levels harmonious relations and constructive interpretation naturally ensued.

This has not been clearly enough understood in each of the low rise residence halls in the Southwest Complex. A mutual understanding of each other's roles was difficult to achieve because of the newness of the experiment with counselors unfamiliar for the most part, with a residential college, with Heads of Residence new to the campus, and with a student population composed largely of Freshmen. Our office in no way wished to hamper the experiment. On the other hand less confusion would have ensued for the Heads of Residence and for their counselors had there been more real sharing of information between our office and the Master and preceptors.

It is encouraging that a Southwest Planning Committee has been set up to include representatives from the offices of the Deans of Men and Women to afford communication and mutual understanding before the opening of the high rise Residence Halls in the Fall. With a superstructure of faculty members in the residences there should be provisions, in the organizational scheme of each house, for adequate communication between them and the one full time staff member. Then everyone connected with the experiment can be part of a mutually supportive team promoting similar objectives and aware of each one's responsibilities.

The Student Life Committee chaired by Dr. Hoffsinger has contributed to understanding between committee members and a mutual respect for each other's philosophy and goals revealed as shared rather than divergent. It was urgent to coordinate our efforts to obviate the "divide and conquer" techniques of which the University had an alarming example this past year. Students need to be aware that it is not politically advantageous to play one agency against the other nor political suicide for them or for us to sit down and talk with each other. Denigration becomes contagious. When people are threatened it becomes easy to fight back or to retreat and to give less than the best of themselves.

I personally have little sense of accomplishment this year except insofar as I have tried to help those Heads of Residence with whom I have worked to keep their equanimity and perspective. There are signs pointing to a more productive year ahead in which we can all work together constructively for desirable objectives in which students can take a more active part responsibly in their student government at the grass roots level. There will be much to do to help them to meet the challenge of freedom with responsibility.

Respectfully submitted,

Isabelle Gokin

August 1, 1966

Department of Public Health

ANNUAL REPORT

July 1, 1965 - June 30, 1966

University of Massachusetts

Amherst, Mass.

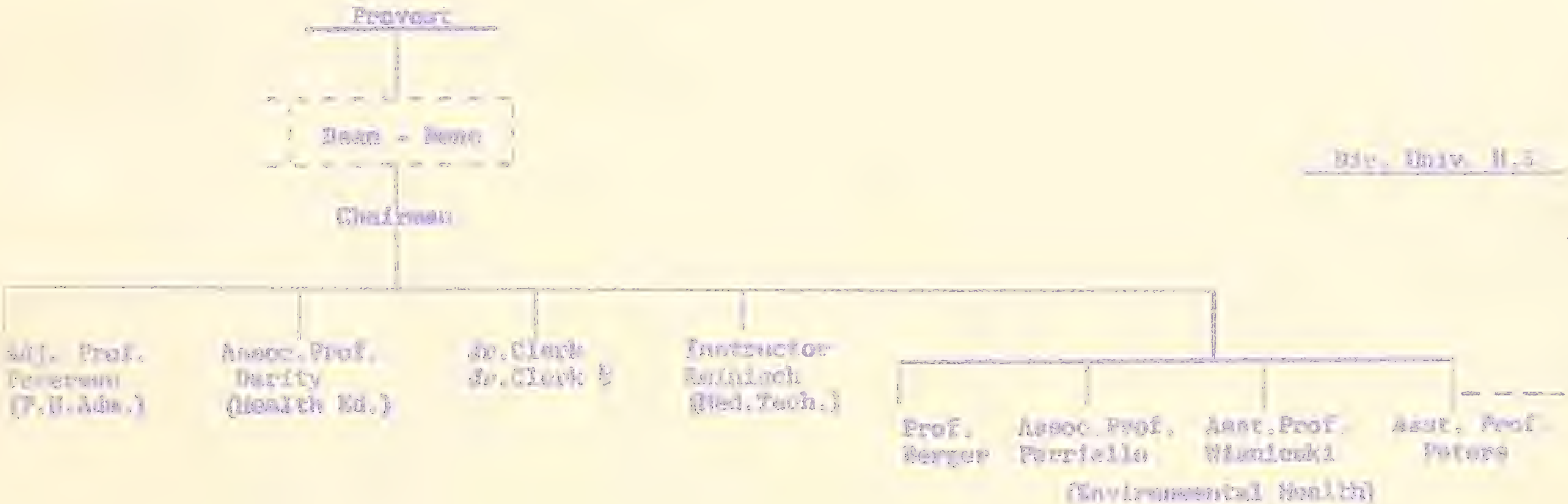
1. Appropriation

	1963-64 (Appropriations)	1964-65 (Appropriations)	1965-66 (Appropriations)
03	$1,450.00	$2,400.00	$5,250.00
06	-	-	-
10	200.00	850.00	950.00
11	-	-	-
12	100.00	200.00	200.00
13	600.00	1,600.00	4,000.00
14	100.00	250.00	400.00
14.1	-	300.00	300.00
15	1,400.00	6,200.00	2,000.00

11. Personnel

	1963-64	1964-65	1965-66
Chairman, part-time	1	1	1
Professor	-	-	1
Associate Professor	1	1	2
Assistant Professor	1	1	1
Assistant Professor, part-time (Director Env. Health & Safety)	-	1	1
Instructor	1	1	1
Adjunct Professor (Peterson)	1	1	1
Secretary (Jr.-Clerk Typist)	*½ time	1	1-½
(Jr.-Clerk Steno.)		½	

*plus considerable extra time on hourly basis.


Provost
Chairman
Assoc. Prof.
Darity
(Health Ed.)
Instructor
(Med. Tech.)
Prof.
Berger
Assoc. Prof.
Asst. Prof.
Asst. Prof.
Peters
(Environmental Health)

IV. Students

			1963-4	1964-5	1965-6
(a)	Majors:	1. Med. Tech.	53	70*	70**
		2. Public Health	30	36*	26**
		3. Public Health (Grad.)	11	14	15
(b)	Students taught:				
		1. Univ. of Mass.			
		1st sem.	175	219	283
		2nd sem.	268	311	336
		2. Stockbridge	95	86	64

*On basis of current records, 4/30/65.

**On basis of current records, 4/05/66.

V. FACULTY PUBLICATIONS AND PROFESSIONAL ACTIVITIES

DARITY, WILLIAM A., Ph.D., Associate Professor

Publications

"Health Education in a Family Planning Program", Health Educators at Work, Vol. 16, 1965, pp. 51-58.

"The Client: Reaching and Keeping", Public Family Planning Clinics: How to Organize/How to Operate. A Conference Report, New York: Searle Reference and Resource Program, 1966, pp. 29-30.

A. Publications in process:

"Health: A Global View", chapter in The World Today in Health, Physical Education and Recreation. Authors, Vendien, Carmack and Nixon. Jointly with Jerome S. Peterson. To be published by Prentice-Hall.

"Staying on 'The Pill' - A Study of Patients in a Public Health Contraceptive Clinic", Health Education Monographs. Jointly with Stephen Polgar, Ph.D., Director of Research, Planned Parenthood Federation of America, Inc.

Research

Director and principal investigator of a research project: "A Study of the Health Aspects of Sex Knowledge and Attitudes Among College Students". Others include Julian Janowitz, M.D., Psychiatrist, University Health Service; Thomas McBride, M.D., Staff Physician, University Health Services; Eugene Piedmont, Ph.D., Asst. Professor of Anthropology and Sociology; and Alan Romanella, Ph.D., Assistant Professor of Education. Faculty grant of $2,700 received to initiate this longitudinal study. (PR-Wil-67-Darity(1).

Other Professional Activities

A. Major papers presented and speaking engagements:

Paper on "Analyzing Failures: Some Reasons for Non-Participation or Failure to Continue to Use Family Planning Services", Fall Conference on Family Planning, New York, Sept., 1965.

Speech: "A Homemaker's Program: What It Can Do for Community Health Improvement". Main speaker at the 60th Annual Celebration of the Visiting Nurse Association of Holyoke, January, 1966.

Paper on "Educational Preparation in Public Health and Health Education at the University of Massachusetts: Present Programs and Future Plans". New England Health Education Association, Annual Meeting, Northampton, May 5, 1966. (Requested for publication in Proceedings.)

DARITY, WILLIAM A. (cont'd.)

Paper on: "Motivational Factors in Family Planning As Related to Health Education". Seminar, School of Public Health, University of North Carolina, Chapel Hill, May 12, 1966.

Lecture on "Culturally Disadvantaged and Community Health Services". Summer Headstart Orientation Training Program, June, 1966.

B. Other activities:

Board of Trustees, Society of Public Health Educators, Inc., and Convener of Special Committee to Assess Present Professional Preparation and Academic Requirements for Community Health Educators, New York, May, 1966.

Adviser and Consultant to the National Task Force on Economic Growth and Opportunity, National Chamber of Commerce, Washington, D.C., October, 1965.

Served as Moderator of special panel at the First National Dental Health Assembly: Emphasis Fluoridation, Washington, D.C., February, 1966.

Elected to Advisory Council, Searle Reference and Resource Program. Attended meeting in Chicago to discuss new approaches in Family Life Education, February, 1966.

Conducted Seminar on Sex Education with a special group of graduate students and advanced undergraduate students, Smith College, Northampton, April, 1966.

Assisted in conducting a Workshop on School Health Education held at South Hadley High School, January, 1966.

Assisted State Board of Health in preparation for organization of Inservice Training for Dental Hygienists and other auxiliary workers of the State Department of Health, Boston, in January and February, 1966.

Conducted seminars with youth groups in both Conway and Ashfield, Spring, 1966.

Served as faculty member, Duke University Training Program for Peace Corps Physicians, August, 1965.

Served as Consultant to Dartmouth College Peace Corps Training Program for Ivory Coast and Senegal, June, 1966.

Served as Consultant to Commonwealth Service Corps, Migrant Education Program, May-June, 1966, Massachusetts.

DARITY, WILLIAM A. (Cont'd.)

Served as Consultant to United Presbyterian Church, U.S.A., National Board of Missions - Community Education and Health Development Program in South Georgia, Cordele, Ga., March, 1966.

Served as Consultant to The North Carolina Fund (Poverty Program), Durham, N.C., 1965-6.

PERRIELLO, ROBERT C., Associate Professor

Other Professional Activities

A. Major papers presented and speaking engagements:

Presented paper, "The Status of the Sanitarian" at the 30th Annual Educational Conference of the National Association of Sanitarians, June, 1966.

B. Other activities:

Chairman, Massachusetts Board of Registration of Sanitarians.

Chairman, Program Committee, Massachusetts Milk Inspectors' Association, International Association.

Member Education Committee, Massachusetts Sanitarians' Association.

Member Public Health Disciplines Committee of National Association of Sanitarians.

PETERS, HOWARD A., Ph.D., Assistant Professor

Other Professional Activities

A. Speaking engagements:

Speaker at Western Massachusetts Public Health Association Meeting, November, 1965.

Speaker at Massachusetts Association of Sanitarians Meeting, December, 1965.

Speaker at School Cafeteria Supervisor's Training Course sponsored by State Health Department, May, 1966.

PETERS, HOWARD A. (cont'd.)

B. Other activities:

Attended the First New England Conference on Urban Planning for Environmental Health at Tufts University, September, 1965.

Attended Joint Technical Meeting of the Northeastern Section of the American Nuclear Society and the New England Chapter of the Health Physics Society, May, 1966.

Presided over Environmental Health Section Conference at the New England Public Health Association Annual Meeting, June, 1966.

Elected to membership in Phi Kappa Phi, national scholastic honor society, April, 1966.

Member, Emergency Preparedness Information Committee, School of Agriculture.

PETERSON, JEROME S., M.D., M.P.H., Adjunct Professor

Publications

A. Publications in process:

"Health: A Global View", chapter in The World Today in Health, Physical Education and Recreation. Authors, Vendien, Carmack and Nixon. Jointly with William A. Darity. To be published by Prentice-Hall.

Other Professional Activities

A. Speaking engagements:

Commencement address, Cooley Dickinson Hospital School of Nursing.

Luncheon speaker, Annual Meeting of Pittsfield Visiting Nurses' Association.

Dinner speaker, Annual Meeting of Springfield Visiting Nurses' Association.

After dinner speaker, Annual Meeting, Hampshire District Medical Society (with Women's Auxiliary).

Luncheon speaker, Leonard Club.

Lectures at Smith College on Health Aand Education - International Health Work for Children.

V. FACULTY ACTIVITIES (Cont'd.)

PETERSON, JEROME S., (Cont'd.)

A. Speaking engagements: (cont'd.)

Lecture at Simmons College School of Nursing on International Health Work.

Lecture at Boston College, School of Social Work, on International Health Work.

Lectured to American Association of Retired Persons (Northampton) on Health Problem in Advancing Years.

Lectured to teachers of Basic Adult Education at Westfield State College, on Health.

B. Other activities:

Testified on Voluntary Family Planning Bill, before Joint Legislative Committee on Public Health.

Panel Member before several associations of Boards of Health to discuss Medicare.

REINISCH, EDITH H., Instructor

Publications

"A Rapid Microtechnic Applied to the Heterophile Antibody Test for the Detection of Infectious Mononucleosis", Reinisch, Edith and Hall, Leo. Am.J.Clinical Path., Vol.45, #6, 1966.

Research

Collaborated with Leo Hall (Infirmary) on "A Micro-serial Dilution Technique Applied to a Test for Infectious Mononucleosis." (Faculty Research Grant FR-W11-65-Reinisch(1)) Report published. See above.

Other Professional Activities

A. Speaking engagements:

Lectured to Holyoke Hospital nursing students on Tuberculosis.

B. Other activities:

President, Pioneer Valley Medical Technologists' Society.

Director, Holyoke Tuberculosis & Health Association.

V. FACULTY ACTIVITIES (Cont'd.)

REINISCH, EDITH H. (Cont'd.)

B. Other activities: (cont'd.)

Chairman, Seal Sale, Tuberculosis and Health Association.

State Chairman of Recruitment, Massachusetts Association of Medical Technologists.

Consultant, Tufts Lung Station, Boston City Hospital.

Moderator of Medical Technology Seminar with Dr. Charlotte Campbell (Harvard University) as principal speaker, Univ. of Massachusetts, March, 1966.

Moderated Symposium on Medical Technology Education with Professor Alice Semrad (Marquette University) as principal speaker, Univ. of Massachusetts, April, 1966.

WISNIESKI, KAROL S., Assistant Professor

Other Professional Activities

A. Speaking engagements:

Prepared and presented supplemental remarks on paper, "Undergraduate Training of Sanitarians" by Dwight Bissell, M.D. at section meeting of the 93rd Annual Meeting of American Public Health Association, Oct. 18-22, 1965, Chicago.

Speaker, Rhode Island Association of Sanitarians, on "Educational Requirements for Public Health Sanitarians", April, 1966.

B. Other activities:

President, Massachusetts Public Health Association.

Field Coordinator, Massachusetts Migrant Health Project #55 administered by Massachusetts, summer 1965.

Prepared "Annual Progress Report", Massachusetts Migrant Health Project, 1965.

Moderator, panel on Undergraduate Curriculum for Public Health Sanitarians, 30th Education Conference, National Association of Sanitarians, Chicago, June, 1966.

Chairman, Program Committee, New England Public Health Association, University of Massachusetts, June, 1966.

V. FACULTY ACTIVITIES (Cont'd.)

WISNIESKI, KAROL S. (Cont'd.)

B. Other activities: (cont'd.)

Participated in Short Course on Basic Hospital Housekeeping, July 6-16, 1965 at University of Massachusetts.

Consultants and Special Visitors to the Department:

HISCOCK, IRA, M.D., Professor Emeritus, Yale University

Visited the Department of Public Health in January to discuss teaching procedures and methods in the area of public health practice and public health programming.

BOATMAN, RALPH, Ph.D., Professor and Chairman, Dept. of Health Education, University of North Carolina, and Chairman of the APHA Committee on Professional Education

Visited the Department of Public Health in March to discuss the manpower needs and methods by which the University could develop a first-rate professional program in this area.

VI. Major Accomplishments of the Department (1965-66)

A. Curriculum. The year saw additional clarification of the public health curriculum with its division, at the undergraduate level, into an emphasis upon environmental health and upon community health and health education. Several of the basic courses for each of these options were reviewed thoroughly and reorganized for next year. In addition, the previous course in P.H. Administration, which will be required of all students, was reorganized into P.H. 383, Introduction to Public Health Practice and P.H. 384, Organization and Administration of Public Health Programs. In addition, courses were added in School Health, Principles of Community Health Education, Community Development and Health Education, Introduction to Occupational Health, and Introduction to Air Pollution. At the graduate level, also, there has been clarification of objective, curriculum, and requirements, which will result in a considerable elevation of the level of study and degree requirements.

It has been clarified that all undergraduates majoring in public health will be expected to complete 30 junior-senior credits in departmental courses, or approved substitutes from other departments.

B. Medical Technology. There now are about 80 students majoring in this program, which places it among the largest of all programs in New England. This is a development which is somewhat remarkable in view of the fact that there has been no active promotion of this major until the past year, the results of which will not be evident until freshmen in the class of 1970 indicate their major preferences.

There now are three hospitals affiliated with the Department in

presenting the course in Clinical Laboratory Practices,--Mercy Hospital, Springfield having joined us during the past year. It should be reiterated that the 3+1 program is to be restricted to those students who have an academic average at the end of three years of at least 2.0, and who in general are considered to be of above average competence in the area of their special interest. It is expected that, as the number of majors in this area increases, the number selected for the 3+1 program will be somewhat less than half of the total. It is a source of basic satisfaction to note that a substantial majority of students elect the full four year program on campus.

C. Environmental Health. Instruction in this area has been strengthened considerably by the addition to the faculty of Professor Bernard Berger, Director of the Water Resources Research Center and Professor of Public Health. Professor Berger brings with him extensive experience in one of the most important areas of environmental health, that of water supply and quality control. His experience will be especially valuable as a basis for the guidance of graduate students in this area of study.

D. Community Health and Health Education. The most significant development in the Department during the past year has been the introduction of realistic opportunities in this area of study. The Department is extremely fortunate to have made the appointment of Associate Professor William A. Darity, who has infused considerable vitality into this program with his energy and unique creativity. Considerable interest has been shown in this rapidly developing subject area, which will be of increasing importance in keeping departmental studies in touch with the most recent developments in public health practice.

In this area, considerable emphasis will be placed on community health analysis and community research projects. Undergraduate students and graduate students working cooperatively in Principles of Community Health Education and Community Development and Health Education are required to work out designs for community analysis and to make actual studies in communities. In the first year students made comprehensive studies of the community structure in four communities in and around the University, namely, Amherst, Northampton, Easthampton, and Hadley. These studies gave the students an opportunity to meet community leaders, to interview citizens in the community on a random basis, and to analyze data. All of these projects had but one objective: to teach the procedure and methodology necessary in establishing public health programs.

It should be noted that a sound background in statistical methods is necessary for students to carry out these types of studies. Therefore it is a departmental recommendation that all majors take University courses in the general area of statistics.

In addition to the community health education courses offered specifically for public health majors, the Department will be responsible for teaching a course in Principles of Health Education (P.H. 123) for non-public health majors. This course was carried by the School of Physical Education until the present reporting year, when it was taught by a member of the Department of Public Health faculty.

VII. Special Projects in 1965-66.

A. A short course in Basic Hospital Housekeeping, presented by faculty from Public Health, Home Economics, and Business Administration, attracted 39 executive hospital housekeepers from the northeast region of the United States. This course was presented in cooperation with the Executive Hospital Housekeepers' Association. The course was received enthusiastically and met with wide approval, indicating a need for repeating the course and possibly supplementing it at an advanced level in the near future.

B. One member of the faculty was involved as a field coordinator for the Massachusetts Migrant Health Project, the purpose of which is to develop a continuing program to study and meet the health and welfare needs of migrant laborers. In addition, several students from the Department were involved in significant, related summer work.

C. In April, the Department was host to a Symposium on Medical Technology Education. This was attended by a large representation of persons from states in the eastern part of the country and was received with considerable enthusiasm.

D. In June, the New England Public Health Association met on the campus. Although this was not an official activity of the Department, several members of the faculty were instrumental in setting up and participating in the program.

E. One of the most significant developments was the consummation of an agreement for establishing an Internship in Public Health Practice in cooperation with the Boston Department of Health and Hospitals. It is anticipated that those students who elect and are selected for this

program will spend a year in graduate study with the Boston Department of Health and Hospitals, at first in a rotation through various public health services, and then in involvement in a major public health project. Support of this internship program has been virtually assured by members of the U.S.P.H.S. It is planned to submit a major grant proposal for support of this project before another year.

F. A member of our faculty was named as director and principal investigator of a research project: "A Study of the Health Aspects of Sex Knowledge and Attitudes Among College Students", in collaboration with staff members from University Health Services, the Department of Anthropology and Sociology, and the School of Education. This grant, FR-WI1-67-Darity(3) for $2,700, initiates a longitudinal study.

G. Administration. After considerable discussion, both by the Public Health Planning Committee and members of the Department with the Administration, it has been decided finally that development of the Department should proceed independent of the Medical School, but in close cooperation with it. Dean Soutter had made the generous offer of appointing a Chairman for the Department of Preventive Medicine of the School of Medicine, with the suggestion that this individual could serve as head of the Department of Public Health on a temporary basis (for approximately five years or until such time as the School of Medicine was ready to open). The proposal had many attractive features and was given serious consideration both by the Public Health Planning Committee and by members of the Department.

After a conference with Provost Tippo, it finally was decided that the Department should remain autonomous and seek a permanent Head of Department for itself. The basic consideration in reaching this de-

-cision was the fact that the trend of development in public health has been predominantly in the area of social sciences rather than in medicine. The greatest problems facing the public health profession in the near future are those related to the organization and distribution of medical care. The most useful resources in seeking solutions to these problems will be found in association with members of departments of social and natural sciences.

As a result, steps are being taken to screen candidates for the position of Head of Department. There has been some difficulty in setting up a clear concept for qualifications for this position, with some ambivalence over the overriding importance of having this person trained basically in medicine.

VIII. Recommendations for the Future.

A. Head of Department. Top priority for future activities must be a vigorous search for a person who will have the ability and can meet the challenge of leading the development of the Department. The opportunity is unique and virtually unlimited. The proliferation of public health problems and the plethora of opportunities for public health workers have made it quite clear that no longer can we rely solely upon the established schools of public health for conducting the research, giving the instruction, and providing the service which will be necessary in the immediate future. There are very few undergraduate schools in as favorable a position as we for initiating new programs of study and instruction. We have a genuine opportunity to demonstrate leadership in developing new approaches to resolving public health problems which

are larger and more complex than any which have faced us in the past.

B. Space. As is true of nearly all other departments in the University, the Department of Public Health has critical need for new space in the future. It has been a significant help to take over the offices and some of the laboratory space vacated by the Department of Microbiology. However, this present allocation is not sufficient for meeting our present needs and will fall far short of meeting minimum realistic needs for any significant development in the future. It is recommended, therefore, that the laboratories on the second floor (Rms. 326 and 330) be assigned for use by this Department. One is critically needed as a health education laboratory, the other will be needed for development of a realistic graduate research program.

C. Clerical Staff. One of the most serious deficiencies in the Department is the inadequacy of clerical service. At present the Department has only one position for Junior Clerk-Typist, the remainder of clerical service being provided by part-time workers on a semi-emergency basis. This is a terribly inefficient system which uses poorly the time and talents of faculty members. It is recommended, therefore, that in the very near future the Department have assigned a position of Senior Clerk on a regular full-time basis.

In this connection, it is noteworthy that the Department's activities will continue to be predominantly on a twelve-month basis. This will be even more true in the future, as a program of continuing instruction is developed.

D. Environmental Health and Safety. The relationship of the Director of Environmental Health and Safety (and his service program for the entire University) to this Department, is one which is of particular

importance. Increasing concentration of students, faculty, and employees on the campus, with the accompanying increase of food services and waste disposal problems, will present a progressively more serious hazard to the public health if effectual control measures are not instituted and maintained. In addition, the rapid increase of occupational hazards in laboratories, etc. presents a new area of concern. Most notable among these is the proliferation of both the number and intensity of sources of ionizing radiation on campus. This is a facet of development which can be projected to continue at a rapidly accelerating rate and is an essential factor in an educational community such as ours. It is an absolute requirement that the use and disposal of radioactive materials follow closely the regulations of the Atomic Energy Commission. Failure to do so will result in a loss of the University's license for use of these materials, and an abrupt and uncompromising cessation of all use of these materials on campus.

Following a visit to the campus during the past year, representatives of the AEC observed some violations of their regulations, and made recommendations for improved management in the future. None of these violations was critical in presenting a health hazard to members of the community. However, it must be made clear that <u>these violations must be corrected</u>.

Prevention of future problems requires that the University have on its staff <u>a full-time staff assistant</u> to the Director of Environmental Health and Safety, who will have the time, as well as the knowledge, to effect proper controls. Qualifications for this person should include training in radiological health at the Master's degree level. He need

not have a basic faculty appointment but certainly he would be useful as an assistant to faculty members in presenting courses of instruction in this area.

In addition, there is critical need for a full-time sanitarian to attend the details of inspection of vending machines, food service operations, on campus housing, and fraternities and sororities off campus. The availability of the Director of Environmental Health and Safety, with a limited staff of part-time graduate assistants, has brought to light repeated carelessness and deplorable conditions, particularly in some fraternity kitchens. Several kitchens have been closed for short periods during the past year to allow for adequate cleaning, etc. It is apparent that if these groups (fraternities and sororities) are to be permitted to continue food service operations in the future, there must be much closer supervision of sanitation if we are to avoid outbreaks of illness with the attendant hazard to the health of students and damage to the public image of the University.

In this connection, a strong recommendation is made that a separate account (W-12) be established, and that a basic allotment to support fully the service functions of the Director of Environmental Health and Safety be made to this account, independent of the allotment made to the Department of Public Health for its instruction and research activities. Only when such a basic administrative decision for allotment of resources has been made to this account can the activities of the Department (Environmental Health and Safety) be carried on without compromise to our instructional services.

Robert W. Gage, M.D.
Chairman, Department of
Public Health

RWG:mj

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

30 June 1966
Rev. 31 August 1966

From: Hugh Montgomery, University Librarian

To: Robert J. McCartney, Secretary of the University

Subject: Annual Report, 1 July 1965 to 30 June 1966.

1. Appropriations	1963/64	1964/65	1965/66
Personnel			
Professional	$165,350	$163,880	$236,374.13
Graded	219,990	237,263	233,491.83
03 Hourly			95,399.77
05 Student	31,197	51,397	65,739.57
Work/Study Student			247.12
Total Personnel	$416,537	$452,540	$631,252.42
Materials			
Books/Periodicals	$468,094	$531,000	$749,833.96(1)
Binding	15,973	29,450	40,357.15(2)
Total Materials	$484,069	$560,450	$790,191.11
Supplies and Expenses	$ 12,155	$ 25,050	$ 46,051.81(3)
Total Appropriations	$912,761	$1,038,040	$1,467,495.34

(1) Books/Periodicals Appropriations and Expenditures 1963/66

	Appropriations	Expenditures
State Funds 1330-01-13		
Budget 7/20/65, 9/9/65, 12/15/65	$100,000.00	$100,000.00(a)
Added by transfer 4/13/66	250,000.00(d)	250,000.00
Added by transfer 6/16/66	100,000.00(d)	106,168.61
State Funds 8266-13-00	200,000.00	200,000.00
Federal Bankhead-Jones Funds		
Balance from 1963/64 and 1964/65	122,378.51	122,378.51(b)
Allocation 1965/66	200,000.00	12,795.64
	$972,378.51	$791,342.76
Less total non-book expenditures, see note(d)		41,508.80(c)
Net Books/Periodicals Expenditures		$749,833.96(c)

For additional footnotes see page 1a.

(2) Binding Expenditures 1965/66

11 Account Funds	$16,606.08
Bankhead/Jones Funds	23,751.07
Total	$40,357.15

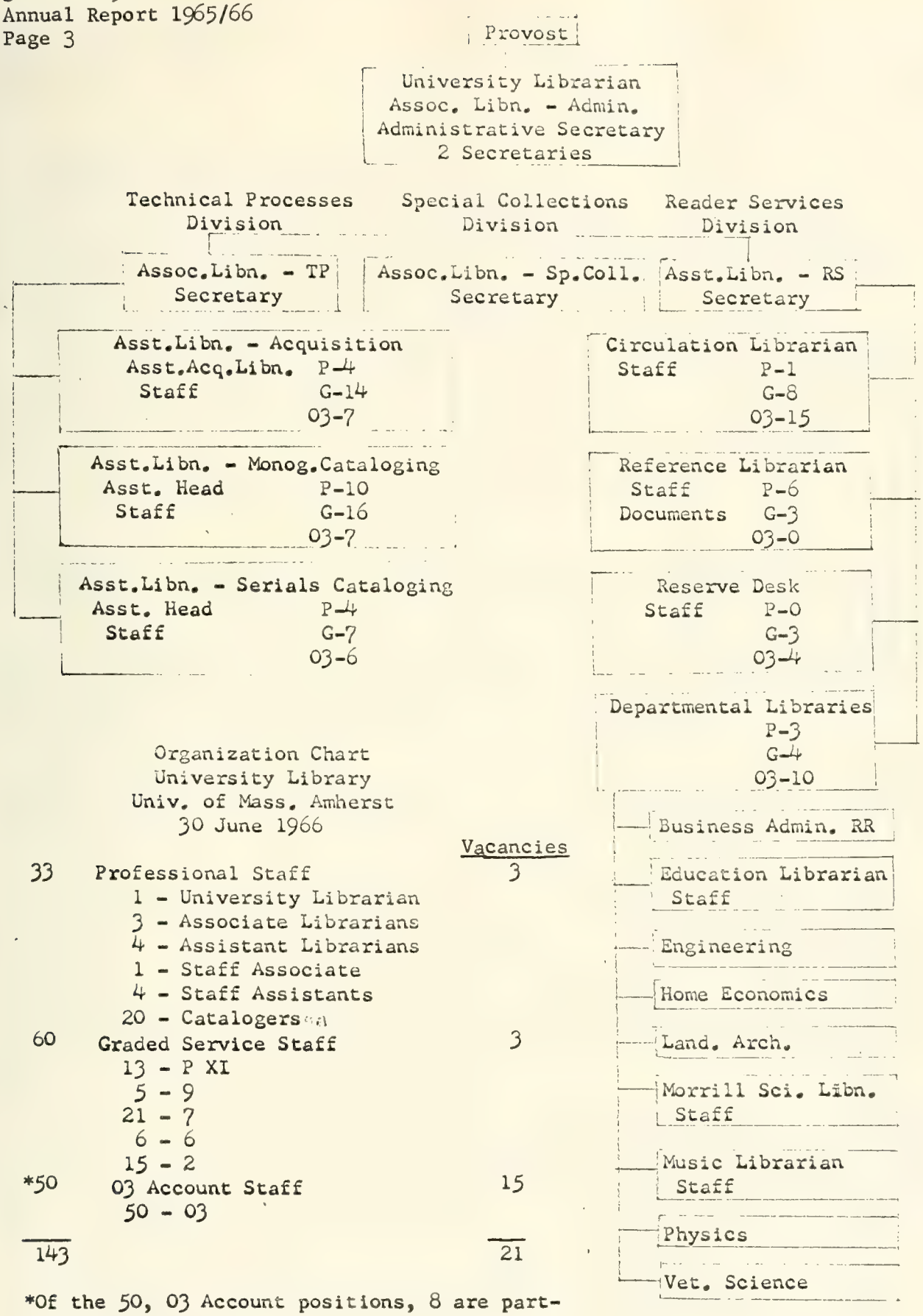
(3) Supplies and Expenses Expenditures 1965/66

10,12,14,14c,1,15,15.1,16 Account	$10,838.58
13 Account supplies expenditure	17,737.73
13 Account HILC Dues and Use Fee	8,400.00
Honoraria	1,053.50
Total	$46,051.81

(a) Includes supplies costs of $17,737.73
(b) Includes binding costs of $23,751.07
(c) Total non-book expenditure $41,308.80
(d) A total addition by transfer of $450,000 to the Books/Periodicals Allotment was proposed in March 1966. The University Library committed by placing orders in April, May and June 1966 an amount equalling approximately $486,432.00. A total addition by transfer of only $130,000 was actually transferred during the fiscal year to the Library's allotment. See also note (e).
(e) At the end of the 1965/66 fiscal year the following were carried forward into the next fiscal year:

(1) Invoices on hand ready to be paid	$ 90,431.35
(2) Orders outstanding in vendors' hands	176,170.77
(3) Orders on hand (y) ready to be placed	38,907.67
(4) Total items carried forward into new FY	$ 305,509.79

(y) Of the 20,000 orders on hand, 17,000 are for out of print items requiring extensive search for copies in the second hand book trade.



Organization Chart
University Library
Univ. of Mass. Amherst
30 June 1966

		Vacancies
33	Professional Staff	3
	1 - University Librarian	
	3 - Associate Librarians	
	4 - Assistant Librarians	
	1 - Staff Associate	
	4 - Staff Assistants	
	20 - Catalogers	
60	Graded Service Staff	3
	13 - P XI	
	5 - 9	
	21 - 7	
	6 - 6	
	15 - 2	
*50	03 Account Staff	15
	50 - 03	
143		21

*Of the 50, 03 Account positions, 8 are part-time and have the full-time equivalency of 4.43 positions.

4. Students or Clientele Served

The University Library has the responsibility to acquire, store, and service books, journals, maps, pictures, manuscripts, and other library materials for the study, teaching, and research needs of students, faculty, and staff of the University. Every effort is made by the library administration and staff to meet these needs within the means available.

A survey conducted in March 1965 by the Senate Library Committee Subcommittee on Undergraduate Services disclosed that 17.3 per cent of the student respondents felt that the library was the best place to study; 84.6 per cent make use of the reserve book collection.

The data on registered borrowers and use of the library and its collections are reported in the statistical supplement.

5. Publications, Research Grants, Language Projects and Other Professional Activities

The Reference Department prepared for the Boston Chapter, Special Libraries Association, a list of important new reference books in Agriculture and Home Economics issued since 1962. The Assistant Librarian (Reader Services) served on the Scholarship Committee of the Massachusetts Library Association. The Music Librarian reviewed concerts and recitals for the Hampshire Gazette.

The University Librarian continued to consult with the other state university librarians of New England and the Executive Director of the New England Board of Higher Education on cooperative means to further computer applications to libraries, especially for card production, serials records, and cooperative book purchases.

Senior members of the staff, particularly the Associate Librarian (Technical Processes), continued to attend conferences, workshops, and symposia on data processing and computer applications to libraries. The University Librarian, the Medical Librarian, and the Associate Librarian (Technical Processes) variously attended meetings at Yale University and at Harvard University on computer applications to medical libraries. Staff members attended annual conferences of the American Library Association, Special Libraries Association, Medical Library Association, New England Library Association, Massachusetts Library Association, Society of American Archivists, and other groups.

At the suggestion of the Provost a questionnaire was sent to 120 university libraries in the United States and Canada in December 1965 to secure information on library lending rules and fine systems for faculty members and graduate students. A draft summary report was prepared in February on the basis of 84 returns. No clear pattern for a loan policy was revealed and almost every kind of policy and practice found adherence in some quarter.

The University Librarian and the Associate Librarian (Special Collections), as an alternate for the University Librarian, attended Hampshire Inter-Library Center executive committee meetings and advised on HILC's administration and collection building. The University Librarian attended the semi-annual meetings

of the Board of Directors of NILC. The major personal "outside" activities of this year for the Associate Librarian (Special Collections) have been two in number. During the summer of 1965 he represented the University Library through personal visits to several outstanding European book dealers to establish a proper basis for cooperating in an All Books Current program for the library. He has been involved with the various proofings of his Check List of the Publications of Thomas Bird Mosher, designed and printed by the Gehenna Press (Leonard Baskin), and to be published by the University of Massachusetts Press probably in the fall of 1966.

6. Major Accomplishments of the Library during 1965/66

A. Summary

(1) Approval by the Board of Trustees of sketches by Edward Durell Stone, Architect, for new major university library building of 320,000 sq. ft. for the Amherst campus to house 2,000,000 volumes. Appropriation of money for the next phase of planning was deferred by the state until the next fiscal year.

(2) Inauguration of an All Books Current (ABC) Program whereby a selected group of book sellers and vendors supply the University Library automatically with university level library materials as published. In the case of the American market a large book jobber ships on an automatic basis books as published. The foreign booksellers chosen to supply the European materials have served as the international agents for libraries participating under the Farmington Plan. The plan has proven to be a distinct advance over the faculty initiated purchase program.

(3) Expenditures of $400,000 in three months (March, April, May 1966) when state money almost doubling the library's book/serial budget was suddenly made available. Total expenditures for books and serials totaled over $984,000 for the year.

(4) Preparation of a computer produced book catalog of the periodicals and other serials held by the University Library. The work on this serials holdings list was begun in July 1965 and distribution of the serials holdings catalog is planned for the beginning of the fall semester 1966/67.

(5) Survey of the usable stack space in the University Library. The conclusion was reached that virtually all shelf capacity would be occupied by June 1967. As book stacks become increasingly crowded, almost constant shifting of the collection is necessary, causing many complaints among library users.

(6) Reassessment of departmental library policy. Following meetings with departments, with representative groups of faculty and students, and following the study by the Senate Library Committee Subcommittee on Departmental Libraries, the conclusion has become clear that the achievement of a compromise between centralization and decentralization in the University Library system continues to be most difficult. There remains much to be done to provide a sensible and fiscally sound policy to govern the development of a departmental library system.

(7) Growth of the library staff from 100 to 133 staff members during the year. The changing of the financial pattern of book/serial expenditure in November 1965 from the sixteen months of abundance ending on that date, and the commencement then of a period of acquisition austerity ending in March 1966 with the announcement of an additional sum of $250,000 and a few weeks later of $150,000 more created havoc in orderly routines of selection, ordering, receiving, and processing of new materials. Vacancies were left unfilled and recruitment of new staff members came to a standstill during the middle months of the year, November to April, with the result that the "crash" acquisition program begun in April brought with it drastic dislocations of staff assignments.

The second half of the year also saw the library administering an austere staffing situation based on 03 account funds. While the library relies on this source to place out the limited professional and graded service positions assigned to it, the major increase in use of 03 funds necessitated by the expansion of library activity this year as compared with previous years could not be continued at the essential rate during the second six months when still greater expansion in library activity was essential to carry out the acquisition/cataloging program. The solution to this problem is essentially the assignment to the library of additional state graded positions sufficient to accommodate all full-time 03 Account hourly staff members. Such an action would carry with it the added virtue of placing the library in a competitive position for the "good" applicants referred by the University Personnel Office. Competent personnel continue to leave for permanent positions carrying with them benefits not available on an 03 status.

B. Comments on Major Accomplishments

(1) Library building planning money. Planning money is urgently needed to permit final structural plans for the development of a new university library building for the Amherst campus. Planning has been at a standstill since February 1966.

(2) ABC Program. Perhaps the outstanding event of the year was the implementation, beginning July 1965, of the All Books Current (ABC) Program following months of negotiation and consultation. The Senate Library Committee and the University Administration agreed to the commencement of relations with selected vendors in this country and abroad (see list of vendors in attachment). University level books and serials falling within clearly defined subject areas of curricular and research interest at the University of Massachusetts are supplied automatically as published. Faculty time devoted to this phase of current book selection could be greatly reduced. On the whole, the program aims have been successfully accomplished during this inaugural year. Unexpectedly, an inordinate amount of staff time, particularly of senior professional staff members, is consumed by this program in order to make it function: implementation; reviewing, modifying, and changing the techniques and routines conducted by Acquisitions, Monograph Cataloging, and Serials Cataloging Departments; analysis and control of items received from ABC vendors; and selection of items appropriate to the library collections but not received on ABC Program. The Acquisitions Department initiates modifications in the program following study and with the approval of the University Librarian.

(3) Budgeting for Book/Serial Expenditure. The orderly and systematic growth of the University Library collections is dependent upon two factors: funds and trained resource personnel.

a. Funds. Analysis of library expenditure patterns for books and serials reveals that a $500,000 budget for resources is not adequate to finance the ABC Program, the renewal of current journal and serial subscriptions, the acquisition of items requested by the faculty and the supplementary initiation of orders made by the library staff in recognition of long term commitments made by the faculty in teaching and research and in developing research collections to meet the present and future needs of the scholarly community. $300,000 to $500,000 more each year is necessary to permit the University Library to acquire essential materials. Such materials must be identified as to desirability and availability--a time consuming and elaborate series of procedures conducted by well qualified senior staff members.

This year the library staff was able to survive a "crash" acquisition program of major proportions over a short period of three months through a combination of fortunate circumstances: unlimited needs, large amounts of money, large amounts of materials immediately available in the reprint market, and expeditious processing of orders by the library and the book dealers. A repetition of a crash program next year would be less successful. There is a limit to a mass buying program. Without instituting a selection program of great depth and breadth, and one substantially funded and staffed in advance, the librarians cannot build a scholarly research collection for the University community. Systematic planning in funding and staffing of the University Library's acquisition program is of the utmost importance and urgently needed at once. A continuing program of current and retrospective acquisition which is foreces five years in advance and continuously under study and revision is an essential requirement for the success of the University Library.

b. Staff. The building of an effective library staff requires management techniques of a high order as well as qualified applicants. The library's administrative experience this year demonstrated the high quality of its management staff in revising old and establishing new techniques in developing organization and routines. Insufficient assignment of graded positions to the library and an uncertain funding picture created grave inconsistencies in staff operations. The University Personnel Office frequently was unwilling to send good candidates to the library for 03 account hourly vacancies when state graded positions with full fringe benefits were available elsewhere on campus. An orderly acquisition program is rendered difficult with "feast or famine" budgeting. Staff must be dropped during the famine and hastily re-acquired and trained during the feast. A staffing predicated on a twelve month program in the context of a five year plan permits satisfactory staff application to a continuing work process. The achievement of a long term plan with short term implementation involving a uniform level of manning is an essential feature of satisfactory University Library management.

7. Special Projects or Programs

A. Library Building Planning

(1) The University Librarian worked closely with the library architect's, Edward Durell Stone's, assistants in devising sketches for a new university library building which were subsequently approved by the Board of Trustees. All planning has stopped pending the appropriation of planning money in the capital outlay appropriations for 1966/67.

(2) The Assistant Librarian (Reader Services), with the assistance of the Associate Librarian (Administration), presented comments and a critique of the library planned for the Graduate Research Center. This facility is far short of an adequate library for the Physical Sciences owing largely to inadequate funds for planning.

(3) For the proposed Fine Arts Building Complex a program for the architect, comments, and a critique were presented for the planning of that library. Again the librarians were asked to rectify gross planning errors without sufficient planning money to do so.

(4) For the enlargement of the Morrill Science Library, space in Clark Hall was considered and the annexation of adjacent space to the present quarters in the Morrill Science Complex was proposed. Consideration was given to the incorporation of suitable library quarters in the planning of the next building phase.

(5) For undergraduate library services a variety of building planning was discussed:

a. The refurbishing of the Goodell building as an undergraduate library.

b. The designation of space in a main floor location in the southwest dormitory complex for a reserve book service for undergraduates.

c. The segregation of an area in the North Dining Commons or other appropriate area in the Women's Dormitory or Orchard Hill areas for reserve book service.

d. The design of library service for University College.

B. Undergraduate Library Service. Student committees and subcommittees of the Senate Library Committee considered the development of undergraduate library services. An extensive questionnaire to sample student opinion was constructed, issued, and the results tabulated. The questionnaire supported the report of the Senate Library Committee Subcommittee on Undergraduate Library Services. The Assistant Librarian (Reader Services) contributed working papers and collected data for this subcommittee. The creation of three to four residential area libraries was favored by the subcommittee to supplement the Goodell building as an undergraduate library, but no clear guide lines as to the size, cost, and nature of these residential collections was developed.

C. Special Collections Division. This division was organized as a separate activity within the University Library in August 1965 with Mr. Benton L. Hatch, Associate Librarian, in charge. He is assisted by Mrs. Hope Pribram. The area, Room 609, is open Mondays through Fridays, 8:30 a.m. to 5:00 p.m.

The Special Collections Division is a place for supervised use and for control of scarce and expensive materials; in effect a vital extension of the resources in the general collections of the library. As opportunity and funds permit, it is hoped to build significant author and subject collections with the items in as near mint condition as possible in order that bibliographers may make significant use of the collections. Bibliography, graphic arts, and printing should develop as curriculum interests in a proper graduate program. This collection should become even more important in the near future.

This year has been devoted to arranging materials in the Special Collections area, to sorting the old Treasure Room titles and transferring some items to the general collection, to recataloging and reclassifying items to the Special Collections designation, and to acquiring materials as funds and items became available. All requests for use of materials have been serviced. There is an increasing seminar and class use, as well as individual use, in connection with term and seminar papers.

A recapitulation, to be found in the appendix, of some of the significant titles or collections, with comments, affords a concise presentation of the potentials of the Special Collections holdings. While the "total" coverage of the Special Collections area is still very spotty, certain significant aggregations of subject materials or author materials are beginning to emerge, this being especially true in the acquisitions made in April through June as a result of money becoming available and interested dealers providing the library with the opportunity of first refusal--a very important factor in the acquiring of significant materials.

Cards have been key-punched for all the cataloged material in the Special Collections area, and it is hoped to issue a supplement to the Accessions List containing this "catalog" in September, prefaced by a statement on the hours and the ground rules for use of the materials--a "kick-off" for the formal opening of the area.

3. Future Plans and Needs

While the University Library staff is constantly concerned with improvements in services, the following matters now receive the most concentrated attention:

A. Foremost in importance is the furthering of every step necessary to the completion of the new university library building at the earliest possible date. The presently installed stack equipment throughout the University will be completely filled by June 1967. Ever increasing enrollments predicate the commensurate increase in library seating capacity. Major expenditures each year for ever greater numbers of books and journals needed for teaching, study and research assume that

convenient and efficient library facilities for storage and use of resources will be provided. This requirement is present at all levels--faculty, graduate, and undergraduate.

A most important consideration is the need for facilities and services to meet the library requirements of undergraduate students. Major concentrations of students in the Southwest Dormitory Complex, in University College, in the Women's Dormitory area, and on Orchard Hill impose on the University the requirement to decentralize essential library services for undergraduates, particularly the reserve book services and such library materials as are required during the freshman and sophomore years which may easily be identified and duplicated in numbers of copies.

B. The provision of long range budgeting policy to support the library's acquisition program is essential to establish proper planning which will ensure adequate staffing and effective services.

C. The development of methods for library orientation for freshmen, other undergraduates, graduate students, and faculty members is essential to permit effective use of library services and resources. Involved are the writing of handbooks, the creation of audio-visual aids, the tailoring of tours to student interests and needs, and the cooperation and involvement of the faculty as well as the library staff in departmental libraries.

D. The faculty and the library must continue the slow and arduous search for an administratively, politically, and economically feasible pattern of departmental library organization and development. This includes: the finding of new space for the Morrill Science Library; the resolution of the impasse over the constituency of the Physical Science Library; the staffing of existing small departmental libraries; the incorporation of new demands for departmental libraries into existing or newly created patterns of organization and growth; and the facing up to the realities of financial support for a decentralized library system.

E. Full-time positions supported from the 03 Account must be transferred as soon as possible to state graded service positions. Recruitment and retention of qualified staff receive adverse effect from the temporary hiring situation involving essential positions without fringe benefits.

F. Means must be found to finance and staff the University Library's computer program. Of absolute importance is the need to automate library routines of acquisition, cataloging, and circulation. Staff members, such as a systems analyst and a programmer, are required to study the library's processes, select hardware, develop software, supervise the transfer to automated procedures, and devise and apply revisions and innovations in the system. While the University Library remains at a standstill, the Library of Congress moves rapidly ahead in a national system of library computer applications. The University Library must find the means to cooperate with and take advantage of the national, regional, and local computer developments as applied to libraries.

Note: Appendix to follow at a later date.

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

15 September 1966

From: Hugh Montgomery, University Librarian

To: Robert J. McCartney, Secretary of the University

Subject: Appendix to University Library Annual Report 1 July 1965 to 30 June 1966.

The enclosed Appendix is supplied in further response to your request of 25 April 1966. This Appendix should be attached to the Library Annual Report dated 30 June 1966, revised 31 August 1966.

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Contents of Appendix to the University Librarian's Report, 1 July 1965 to 30 June 1966

A. Staff Roster (See Page 2 of Annual Report for Personnel as of September)

B. University Library Organization Chart (See Page 3 of Annual Report)

C-1. Acquisitions Department - Annual Summary of Statistics

C-2. Cataloging Departments - Annual Summary of Statistics

C-3. Special Collections Division - Statistics and Significant Acquisitions

C-4. Volumes Added to Active Departmental Libraries

D-1. Circulation Statistics

D-2. Departmental Library Statistics

D-3. First Session Summer School - Circulation and Reader Use Statistics

D-4. Second Session Summer School - Circulation and Reader Use Statistics

D-5. Reserve Book Statistics (See Appendix D-1)

E. Reader Use Statistics

F. Inter-library Loan Statistics

G. Expenditure for Books and Periodicals, July 1954 - June 1965

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1965

Acquisitions Department - Annual Summary of Statistics

	1965/66	1964/65
Requests Received	53,692	52,667
Search Statistics:		
Requests Searched	42,122	
Books Searched	27,950	
Dealer Catalogs Searched	33,834	
Total Items Searched	103,936	(no figure)
Number of Orders Placed	62,877	42,828
All Books Current (ABC) Program Volumes Received	13,815	(None)
Number of Duplicates Returned to Departments	3,559	6,041

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Cataloging Departments - Annual Summary of Statistics

		1965/66	1964/65	Percentage Gain
Titles Cataloged				
Monographic Titles	41,811			
Serial Titles	1,518			
Total Titles		43,329	35,248	23
Volumes Cataloged				
Monographic Volumes	49,127			
Serial Volumes	22,651			
Total Volumes		71,838	64,884	11
Total Volumes Withdrawn		2,652	1,082	
Total Volumes in University System		427,996	358,610	
Total Volumes in Departmental Libraries		117,480	98,490	
Titles Recataloged and Reclassified				
Monographic Titles	7,591			
Serial Titles	3,091			
Total Titles		10,682	(No figure)	
Volumes Recataloged and Reclassified				
Monographic Volumes	10,142			
Serial Volumes	24,202			
Total Volumes		34,344	21,769	55
Total Volumes Processed		105,741	86,653	22

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

27 August 1966

Special Collections Division
Statistics and Significant Acquisitions

A Statistics

Cataloged Items in the Division.

	Titles	Volumes or Pieces
Books and Pamphlets	1,419	2,669
Manuscripts	2	2
Periodicals	57	324
Total	1,478	2,995

All items have been cataloged since August 1965 and consist of recataloged materials from the old Treasure Room collection and more recent purchases.

B Significant Acquisitions

A recapitulation with comment of significant titles and collections presents a concise summary of the potentials for research and study of the growing resources of the Special Collections Division. It must be emphasized that what we have is only the beginnings, even though some subject areas are already becoming collections "in depth," notably the combination of No. 4 with Nos. 5-8 below.

1. U. S. Congress. Documents of the first fourteen congresses.
Our collection of some four hundred and seventy-five original documents of the first fourteen Congresses of the United States has been checked against the one available bibliography, Greely's Public Documents of the first fourteen Congresses, 1789-1817, the Special Collections copy of this has been annotated with our holdings, and the documents have been arranged in chronological order by Congress and session. About half of our holdings have not been reprinted in American State Papers.

2. Antislavery books and pamphlets--some 300 titles mostly relating to the U. S. and the West Indies.
A calendar will be constructed for the pamphlet material in this collection, and the bound volumes will be individually cataloged. Some of the titles in the latter category are already cataloged, and bibliographical investigation has disclosed that many of the titles are scarce. The pamphlet, or unbound, material includes fragmentary runs of abolitionist serial publications. Originally it had been thought to calendar these with the rest of the unbound items, but a check in the 3d edition of the Union List of Serials reveals that not only are there infrequent locations for some of these titles, but also the larger university libraries frequently report very broken holdings. In view of this, it has been decided to catalog these serial titles, fragmentary though they are, so that our holdings may eventually get into our own serials list, and ultimately into the "four-college" one.

3. Pamphlets by Massachusetts persons or relating to Massachusetts activities.
About 2,000 titles, eighteenth through most of the nineteenth century.
Where possible, these will be arranged by category such as election sermons, etc , and each group classed and calendared.

4. Brabant Revolution material.
Two newly purchased collections have been checked and merged and are in the process of being calendared. These contemporary materials relating to the Brabant Revolution of 1789-1790 in Belgium consist of approximately 1,200 items. Significant individual titles will be cataloged individually, such as the extremely scarce Recueil des representations, protestations et reclamations faites à S.M.I. par les representans et Etats des dix Provinces des Pays-Bas Autrichiens assemblés, Bruxelles, 1787-1790 (17v. in 11).

5. Révolutions de France et de Brabant (Desmoulins), 8v.
91 of 104 numbers published with the "Prospectus" and 5 supplements.
An extremely scarce run. Cataloged. Incidentally, the Union List of Serials, 3rd ed., reports only four complete sets of this journal and among the incomplete sets only one other library, Harvard, with a better set than ours, and that by only one number.

6. Révolutions de Paris (Prudhomme), 17v. Cataloged.

7. M. E. H. Binet French Revolution collection.
About 430 books, pamphlets, etc., mostly contemporary, including a collection of contemporary pamphlets, pièces intéressantes, approximately 4,000, bound in 99v., an absolutely irreplaceable collection. This will be cataloged individually and calendared, the significant books will be cataloged (some sets will go to the general library collection) and the pamphlets, etc., also calendared. This is a very important acquisition. In transit to us from abroad.

8. Moniteur universelle, 1789-1848.
A magnificent set of this important journal. (The illustrated reprint of the years 1789-1792 of this, under title Ancien Moniteur, in the Binet collection, will be one of the titles going to the general collections). In transit to us from abroad.

9. French secondary authors collection.
Over a thousand volumes, many in special issues and in original wrappers. Everything not already represented in the general collections that can possibly be sent there without destroying valuable bibliographic information will be. In any case, an important augmentation to the field of late nineteenth and early twentieth century French literature. The former owner was an important official in one of the French ministeries. When a complaint was made about his name being clipped from author's autograph presentation inscriptions, the explanation was made that this was done in order to get the collection out of France. Export would have been refused if the licensees could have identified the owner. Cataloging of those titles remaining in Special Collections is a task for next year.

10. Croce collection.
The library was offered first refusal of materials by and about Croce totalling

almost eight hundred items. This very comprehensive collection was ordered on the basis of the priced catalog but not received by the end of the year.

11. Italian Literature.
One important and supplementing purchase was committed at year's end, that of almost an entire dealer's catalog of Italian literature of the period 1850-1950. This will provide the University with substantial, in some cases even unique, holdings of such controversial figures as D'Annunzio and many of his contemporaries.

12. Serials.
We have also purchased what will be the best file in this country of the very important La Clef du cabinet des princes de l'Europe and its continuation, Journal historique, the collection Histoire general de Paris, 93 of the 95 vols. published, a very important Helvetica collection of about 3,000 vols., a Genealogie-Heraldique-Noblesse collection including many very important sets, a long run of the Almanach de Gotha, a good set of the controversial German magazine, Der Spiegel, and a nice collection of about 230 tracts on the Puritan Revolution, mostly London, 1642-1645. Some of these titles, such as the last mentioned, are Special Collections, but in the main these are general collections purchases.

13. English literature.
One of the very weak areas, though with some scarce items, a William Morris collection (Robinson) including many of the scarce ephemeral titles and some association items--a good beginning, and a fair representation of works by Aldous Huxley. The Trianon Press William Blake facsimiles are all here, excepting one, including the very scarce Jerusalem from the unique Stirling colored copy and both important editions of his works, the Ellis-Yeats, and the Nonesuch edited by Keynes. We now own the second edition of Johnson's Dictionary; and A. B. Grosaart's Occasional issues of unique or very rare books, a seventeen volume collection of thirty-seven late sixteenth and early seventeenth English literary works in reprint, of which there were only thirty complete sets published, one of which we have.

14. American literature.
Another weak area but with a somewhat broader spread of authors. A collection recently purchased of approximately six hundred titles will add early works of such authors as Willa Cather, Dos Passos, Sinclair Lewis, a number of titles of Crane, Eggleston, and some other nineteenth century authors, and a fairly extensive Hamlin Garland collection including his first works in paper, and many presentation titles.

15. The Mann-Schweizer collection.
Includes presentation copies of works of Thomas Mann to Richard Schweizer and also from other members of the family and from associates in his "circle" in exile in Switzerland. (All non-autographed volumes will go to the general collections). Also included is Schweizer's diary of a trip to the Orient, and his day books from 1940 into 1965, the year of his death, and typescripts of a few versions of his films as well as the original printed text--some his, some by others--upon which the film versions were based. The day books are a primary source, the existence of which is not yet known outside his own family, not only tracing the development of his films but also recording

conversations with Mann, his family, and friends. This may prove a fruitful source not only for foreign film history and Richard Schweizer, but also for Thomas Mann.

16. Karl Kraus.
A significant collection of the works of Karl Kraus was ordered and received, and partly checked. This fits in nicely with our complete set of Die Fackel, an important pre-Hitler Austrian socialist periodical of which Kraus was both editor and contributor. The collection includes some memorabilia mostly collected by his friend and associate, Gabriel Rosenrauch, including an index in manuscript, to Die Fackel, made by Rosenrauch.

17. Art and architecture materials.
Though spotty and uneven, this subject area includes very important titles, as for example, the Berlin/Kilhoff definitive edition of Albrecht Dürer (6 folio volumes), the definitive Leonardo da Vinci as far as published, the Rovinskii collections of etchings of Rembrandt and his school, (Czarist Russian publications), the 25v. history of Italian art by Venturi, Lippmann's very scarce ten volume collection of XV-XIX century engravings and woodcuts, reproductions so perfectly executed that the publisher hand-stamped "Facsimile" on the back of each plate to prevent unscrupulous individuals selling them off as originals, and many important titles on architecture, ceramics and pottery, silversmiths, etc., as well as "modern" artists. Except for the "crafts" titles, extra card sets have been prepared to be incorporated in the Fine Arts Library catalog as an aid to locating expensive and scarce titles which are here in the Special Collections Division.

18. Bibliography and history of printing.
The basis of this gathering of expensive and scarce bibliography was the former "Z" collection, with significant additions made during this past year. The complete set of the Gesellschaft and the complete set of Signature came out of the Stevens "library" lot purchased some years ago. One important addition to this area which ties in with other material is the Keynes Blake bibliography, an extremely scarce book.

19. Other activity. We have added significant materials, much of it criticism, and some of it Special Collections because of rarity or fragility, on Proust, Gogol, Gorki, Pushkin, Tolstoi, various secondary Russian authors, European history, secondary source materials (six compilations which significantly augment our French Revolution holdings, including Spec. Collec. 5-8), French "little mags," some of which bear upon the same revolutionary period, such as the extremely important and very scarce surrealist magazine, Minotaure of which we have all but two issues, The Dome, Coterie, and Genius, some German "little mags," European banking, business history, and other aspects of economics such as theory of money, etc., and collections of the works of and criticism on, such Swiss-German authors as Bitzuis, Keller and Meyer.

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Volumes Added to Active Departmental Libraries

Active Departmental Libraries	Volumes Added July 1965 - June 1966	Total Volumes 1 July 1966
Agricultural Engineering	88	500
Animal Husbandry	17	2,193
Arboriculture	3	102
Chemistry	1,469	12,261
Dairy	6	1,458
Education	1,354	9,115
Engineering	2,658	9,881
Entomology	232	6,390
Food Technology	547	4,363
Forestry	643	2,991
Home Economics	424	3,715
Labor	223	223
Landscape Architecture	439	1,851
Mathematics	1,642	4,737
Morrill	4,481	17,833
Music	1,757	2,151
Physics	898	5,339
Plant & Soil Sciences	320	4,074
Poultry	18	1,075
Psychology	1,102	5,087
Shade Tree	4	135
Veterinary Science	169	1,395
Off Campus		
Cranberry	68	387
Waltham	1,028	2,713
Total Volumes in Departmental Libraries, 1 July 1966		117,480*

*Figure for total volumes in departmental libraries includes volumes held in several inactive departmental libraries, as well as volumes held in the active departmental libraries itemized above.

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Circulation Statistics

	1965/66	1964/65	Percent of Change
Main Library			
Regular Books	113,199	85,341	32.6
Reserve Books	160,373	134,743	19
Psychology Books	63,689	22,444	183.7
Total	337,266	242,528	34.9
Departmental Libraries	68,845[a]	55,491[b]	
Grand Total	406,111	298,019	
Average Daily Circulation			
Regular Books	332.3	256.2	
Reserve Books	501.1	404.6	
Psychology Books	187.3	67.4	
Number of Days Library Was Open	340	333	

a. Libraries reporting: Education, Engineering, Home Economics, Landscape Architecture, Morrill, Music, Physics, Veterinary Science.

b. Libraries reporting: Education, Engineering, Morrill.

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Departmental Library Statistics

Library	Reserves	Books	Other	1966 Total	1965 Total
Education	9,543	17,642	8,384[a]	35,569	38,397
Engineering	1,243	3,909		5,151	3,291
Home Economics	3,628	1,205		4,833	
Land. Arch.	0[b]	440		440	
Morrill	6,228	6,663	5,375[c]	18,266	13,803
Music	10	835		845	
Physics	1,689	1,888		3,577	
Vet. Science[d]	0	164		164	
Totals	22,341	32,746	13,759	68,845	55,491

a. Children's books
b. Open shelf, in-building use of reserves
c. Periodicals
d. 3 months only

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

First Session Summer School
Circulation and Reader Use Statistics

	1965	1964	Percent of change
1. Circulation			
Main Desk	4,657	3,743	+24.4
Reserve Desk	4,228	2,579	+63.9
Psychology Room	1,895	1,273	+48.9
Total	10,780	7,595	+42.
Average Per Day			
Main Desk	125.9	116.9	
Reserve Desk	114.3	80.6	
Psychology Room	51.2	39.8	
Total	291.4	237.3	
2. Reader Use Statistics (Averages)			
Monday - Thursday			
9:30 a.m.	69.6	47.3	
3:00 p.m.	71.7	40.3	
7:15 p.m.	65.3	32.9	
8:45 p.m.	62.5	11.1	
Total average per day	269.1	131.7	
Friday			
9:30 a.m.	67.3	41.3	
3:00 p.m.	44.7	34.3	
Total average per day	112.	75.7	
Saturday			
10:00 a.m.	16.6	13.	
3:45 p.m.	29.2	13.	
Total average per day	46.5	26	
Sunday			
4:00 p.m.	58.	18.	
8:00 p.m.	46.5	17.	
Total average per day	137.5	35.	

25 August 1966

Circulation and Reader Use Statistics

Appendix E

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

Ef August 1966

Reader Use Statistics

	1965-66	1964-65
Total Use	293,771	344,191
Library open (semester days)	339	307
Daily average	866.6	1121.1

Hourly Averages

Mon.-Fri.		
9:30 a.m.	164.2	201.1
3:00 p.m.	213.4	272.1
7:15 p.m.	201.3	279.4
8:45 p.m.	108.1	303.4
10:30 p.m.+	n.a.	207.6
11:30 p.m.+	n.a.	108.3
+Mon.-Thurs.		
Saturdays		
10:00 a.m.	47.0	115.0
3:45 p.m.	66.4	177.4
Sundays		
4:00 p.m.	219.8	334.5
8:45 p.m.	216.3	363.7
10:30 p.m.	n.a.	226.3
11:30 p.m.	n.a.	115.6

Appendix F

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Interlibrary Loan Statistics

Volumes borrowed and lent

YEAR	BORROWED	LENT
1965-66	3873	1260
1964-65	3610	976
1963-64	2813	754
1962-63	2179	613
1961-62	1960	370

Volumes borrowed and lent by institutions

	Lent to University	Borrowed from Univ.
Amherst	832	193
Forbes	47	367
HILC	55	---
Mt. Holyoke	701	226
Smith	857	250
Other	1381	224
	3873	1260

Books borrowed by borrower

Faculty	1188
Graduate	2231
Undergraduates	454
	3873

Total transactions for University borrowers

Books borrowed and lent	5133
Free photocopies	354
Microfilm and photos bought	345
Free Xerox copies supplied by Univ.	206
TOTAL	6038

UNIVERSITY OF MASSACHUSETTS/Amherst
UNIVERSITY LIBRARY

25 August 1966

Expenditure of Books and Periodicals

July 1954 - June 1966
(All figures rounded
to nearest dollar)

1954/55	$ 30,635.00
1955/56	41,513.00
1956/57	34,570.00
1957/58	85,775.00(1)
1958/59	58,630.00
1959/60	65,706.00
1/60 - 3/61	100,000.00(2)
1960/61	170,834.00(3)
1961/62	213,075.00
1962/63	200,901.00
1963/64	468,094.00(4)
1964/65	531,000.00(5)
1965/66	749,834.00(5)

All totals include some expenditures from Trust and Research Funds, for the latter just through 1960/61.

(1) Includes $25,000.00 special appropriations.
(2) Amount transferred from Building appropriations which "expired" June 1961.
(3) Includes $100,000.00 special appropriations.
(4) Includes $250,000 Federal Bankhead-Jones Funds.
(5) Includes $200,000 State special appropriation and $200,000 Federal Bankhead-Jones Funds.

Preliminary

A N N U A L R E P O R T

UNIVERSITY HEALTH SERVICES

Robert W. Gage, M. D. Director

1965-66

University of Massachusetts

Amherst, Massachusetts

I. FINANCIAL SUMMARY

	1963-64	1964-65	1965-66
A. Appropriation	$321,100 (1)	$395,800 (1)	$499,650 (1)
401 Salaries, permanent positions	254,347 (2)	298,710 (2)	379,950 (2)
403 Wages, misc. personnel	2,500 (3)	2,500 (3)	3,500 (3)
404 Food	1,600	5,350 (5)	10,500 (5)
406 Housekeeping Supplies	6,600	2,150 (3)	4,500 (3)
407 Medicine & lab supplies	35,100	38,500	39,000
410 Travel	2,900	2,400	3,000
414 Administration	3,600 (4)	6,200 (4)	8,000
415 Equipment	--- (6)	6,000 (6)	6,750 (6)
Other Accts: Clothing, Repairs, Printing Refunds, Perm. Reserve	14,453	33,990	44,450
Total Appropriations	321,100	395,800	499,650
B. Total Expenses	295,625 (8)	310,481 (8)	400,050 (8)
C. Balance Carried Forward (Needed for July-August expenses) full operation in 1966	25,475	85,319 (9)	99,600 (7)

(1) Includes balance from previous year.

(2) Does not include: retirement contribution, health insurance contribution, and assistance from other sources.

(3) Does not include assistance from other sources.

(4) Does not include telephone charges.

(5) Does not include credit from University Boarding Halls.

(6) Some additional equipment from other sources.

(7) Estimated 6-1-66

(8) Not included in operating expenses are: maintenance of building, utilities (heat, light, water, sewer), and amortization of cost of building and original equipment.

(9) Cash Balance

PERSONNEL

A. Professional Staff	1963-64	1964-65	1965-66
Director, University Health Services	1	1	1
Staff Physicians, full time	4	5	5
Staff Physicians, part time	0	0	1
Staff Physicians, part time (Specialists)	4	4	4
Director, Mental Health	1	1	1
Principal Psychologist	1	1	1
Clinical Psychologist, full time	1	1	2 (1)
Clinical Psychologist, part time	0	0	1
Director of Environmental Health & Safety	-	1	1
Supervisor of Nursing Services	1	1	1
Staff Assistant, Business	-	-	1
B. Ancillary Service Staff			
Research Assistant (Lab & X-ray)	1	1	1
Research Assistant (Lab), part time	1	1	1
Research Assistant (X-ray)	-	1	1
Lab Assistant, part time	-	-	1
Supervising Physical Therapist	1	-	-
Physical Therapist, full time	-	1	-
Physical Therapist, part time	-	-	1
C. Nursing Staff			
Hospital Supervisor	-	-	-
Assistant Hospital Supervisor	1	1	1
Head Nurse 3rd Floor, full time, 9 mos.	-	-	1
Head Nurse OPD, full time	-	-	1
Graduate Nurses, full time	3	3	4
Graduate Nurses, part time	14	7	7
Graduate Nurses, full time, 9 mos.	-	7	6
Licenses Practical Nurse, part time	-	-	1
Hospital Aides, full time	4	1	-
Hospital Aides, full time, 9 mos.	-	4	5
Hospital Aides, part time	1	2	4
D. Secretarial Staff			
Administrative Secretary	1	-	-
Principal Clerk	-	1	1
Medical Secretaries	4	5	6
Senior Clerk-Stenographer	-	-	1
Medical Records Clerk	1	1	1
Secretary, part time	1	1	1
E. Food Service Staff			
Head Cook, full time, 9 mos.	1	1	1
Cook, full time	-	1	1
Assistant Cook, full time, 9 mos.	2	2	2
Assistant Cook, part time	1	-	-
Kitchen Helper	2	-	-
Kitchen Helper, part time	2	2	3

PERSONNEL

F. Maintenance Staff

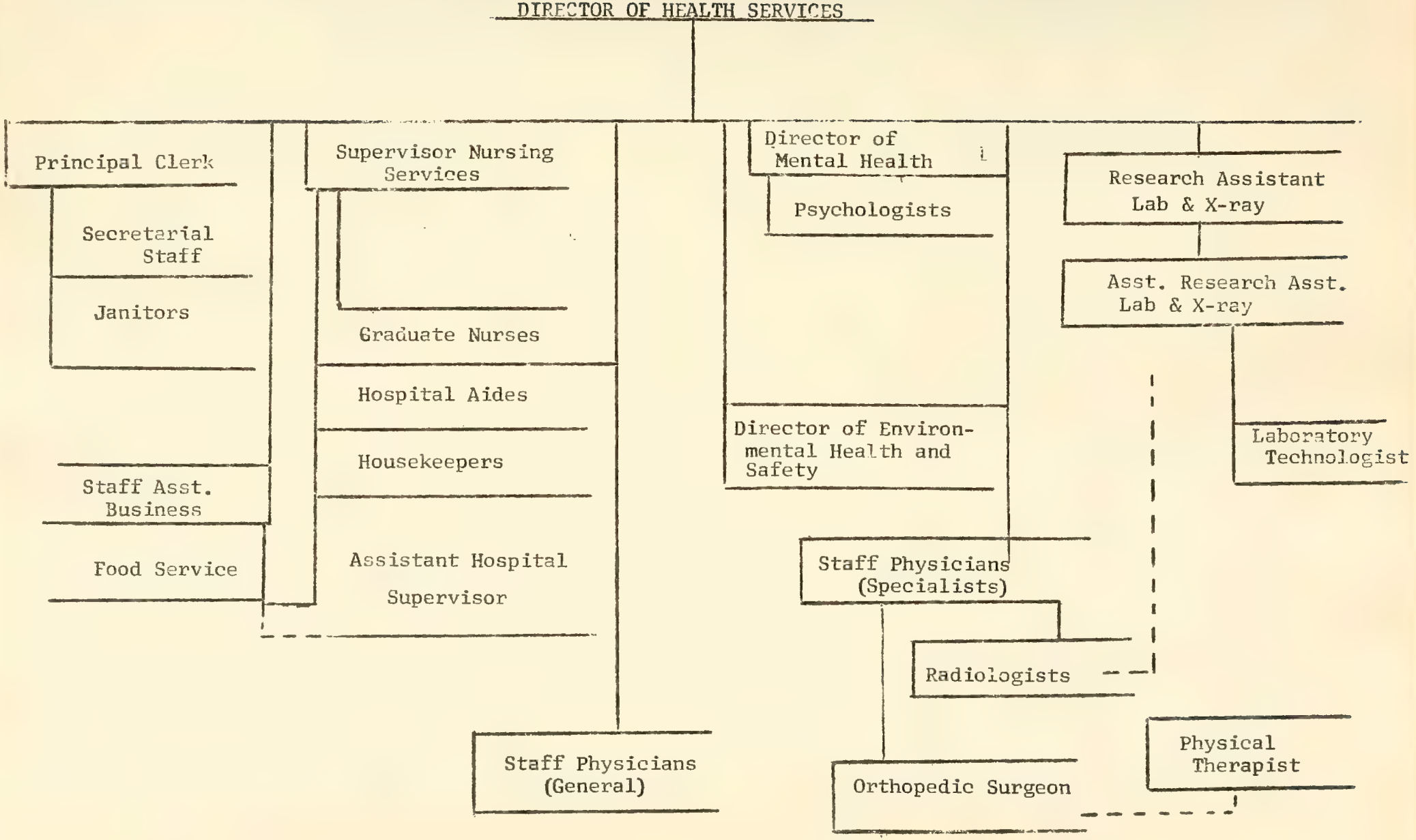
Janitor, full time	2	2	2
Housekeeper, full time	2	1	1
Housekeeper	2	-	-
Housekeeper, full time, 9 mos.	-	4	4
Housekeeper, part time	-	-	1

G. Student Workers

Clerk (visitor)	-	2	2
Janitor	1	2	2
Kitchen	-	1	2
Laboratory	1	1	2
Orderly	-	1	2

(1) Psychologist (2nd position) vacant until April, 1966.

III. Organization Chart



IV. Utilization of Services

	1962-63	1963-64	1964-65	1965-66
A. Students Enrolled (1)	7,676	8,811	10,400	11,859
B. Services Rendered (Estimated for June 1966)				(2)
I. Outpatient Visits				
2 regular semesters	33,705	40,183	48,517	*
Summer sessions	2,102	265	2,552	*
Total July 1 - June 30	35,807	40,448	51,069	*
II. Mental Health Department				
Visits, individual	1,856	2,616	2,665	2,893
Group therapy (patient hours)		121	827	367
III. Laboratory				
Number of determinations	9,236	12,411	16,295	23,745
IV. X-ray Services				
Number of Patients	1,231	1,742	2,323	2,775
V. Physical Therapy				
Number patient visits	2,875	2,473	3,423	*
VI. Inpatient Services				
Bed Patients - total	1,269	1,777	1,799	*
Patient days in Infirmary	5,072	5,582	6,206	*
VII. Administrative Services (3)		2,682	4,780	*

NOTES

1) Includes: Undergraduates and graduates, Sept. 1965, including special and part-time students, some of whom are not eligible for care by Health Services. Estimated number of students served: 11,300

2) All figures in these columns include extrapolation for June 1966

3) Administrative Services: This includes an enumeration of significant communications concerning student problems, evaluations for modification of school program, referrals from administrative officers, and other visits or services not directly related to health care.

* Data processing is so delayed that not even approximate figures are available at this time.

V. STAFF PUBLICATIONS AND PROFESSIONAL ACTIVITIES

ALLEN, DEAN., Ph. D.

Publications:

"Withdrawal from College for Severe Psychiatric Disturbances". With Julian F. Janowitz, M. D. JOURNAL OF THE AMERICAN COLLEGE HEALTH ASSOCIATION, Vol. 14, pp. 301-304, 1966.

Other Professional Activities:

Chairman, Orchard Hill Evaluation Committee

Member, Committee on Rulebook revision.

Member, Provost's Committee on Planning for the Northwest Residential Complex.

Faculty Advisor to student group Protestant Christian Council.

Major speaker: 17th Annual New England Conference of International Association of Student Unions, November 14, 1965.

Major Speaker: Massachusetts Association of Women Deans and Counselors, Longmeadow, Massachusetts, April 30, 1966.

Instructor: Honors Colloquium, Fall and Spring semesters, 1965-66.

Reviewer and abstractor of articles in Journal of the College Health Association for Personnel and Guidance Journal.

BRANDFASS, CARL F., JR., M. D.

Research Grants and Projects:

"Electrophoretic Analysis of Serum Proteins in Patients with Infectious Mononucleosis". University of Massachusetts Faculty Research Grant #FR-VII-66 (1).

Other Professional Activities:

Postgraduate course in Dermatology, Postgraduate Medical Institute, Boston, October 13 and October 20, 1965.

Meeting of Americal College of Sports Medicine, November 19-20, 1965, University of Massachusetts

Postgraduate course in Adolescent Medicine, Harvard University, May 9 through 13, 1966.

Chairman, Disaster Committee, University Health Services

Chairman, Laboratory Committee, University Health Services

GAGE, Robert W., M.D.

Professional Activities:

Executive Committee, American College Health Association.

Chairman, Committee on Standards, American College Health Association.

AMA-ACHA Liaison Committee, American College Health Association.

Vice-President, American College Health Association, 1966-67.

University Health Council, Chairman 1965-66

Review Committee for Human Subjects in Research

Student Personnel Activities Council

Board of Admissions and Records

Fourteen th Annual Symposium for General Practitioners on Respiratory Diseases, including Tuberculosis, American Thoracic Society, Saranac Lake Medical Society, American Academy of General Practice and College of General Practice, Canada, at Saranac Lake, New York, July 12-18, 1965.

Board of Governors, Massachusetts Chapter, American Academy of General Practice.

Research Committee, Massachusetts Academy of General Practice.

Medical School Liaison Committee, Massachusetts Chapter, American Academy of General Practice.

Medical-Dental Subcommittee, Special Commission on Radiation Protection, Sommonwealth of Massachusetts.

GERMAIN, Beatrice

Professional Activities:

Hospital Housekeeping Seminar, University of Massachusetts, July 5-19, 1966.

New England Hospital Assembly, Prudential Center, Boston, Massachusetts, March 28-30, 1966.

HALL, Leo B.

Publications:

"Observations Regarding the Usefulness of a Rapid Heterophile Procedure". JOURNAL OF THE AMERICAN MEDICAL TECHNOLOGISTS, December, 1965, pp 504-506.

Research Grants and Projects:

"A Rapid Microtechnique Applied To The Heterophile Antibody Test For The Detection Of Infectious Mononucleosis". University of Massachusetts Faculty Research Grant Reinisch FR-W11-65.

"Electrophoretic Analysis of Serum Proteins in Patients With Infectious Mononucleosis". University of Massachusetts Faculty Research Grant Brandfass #FR-V11-66 (1).

Other Professional Activities:

Exhibit at Annual Meeting of the American College Health Association, San Diego, California, May 2[illegible]8, 1966.

HAVENS, Joseph D., Ph.D.

Member Personnel Committee, United Christian Foundation of University of Massachusetts, 1965-66.

Speaker, Friends' Conference on Religion and Psychology, Haverford, Pennsylvania, June 10-12, 1966.

JANOWITZ, Julian F., M.D.

Publications:

"Withdrawal From College For Severe Psychiatric Disturbance". With Dean A. Allen, Ph.D. JOURNAL OF THE AMERICAN COLLEGE HEALTH ASSOCIATION, Vol. 14, pp. 301-304, 1966.

Other Professional Activities:

Consultant School of Nursing, University of Massachusetts.

Program Director, 4-College Personnel Guidance and Mental Health Group.

Consultant, Amherst Counseling Group.

Consultant, Research Study conducted by William Darity, Ph.D.

JENNINGS, Richard K., M.D.

Professional Activities:

Board of Governors, Massachusetts Chapter, American Academy of General Practice.

Medical Consultant to Peace Corps Ecquador Project, and to VISTA, June 19-August 31, 1966, Montana State University, Bozeman, Montana.

Postgraduate course, "Immunologic and Clinical Aspects of Allergy", March 17-19, 1966, Buffalo General Hospital, Buffalo, New York.

MCBRIDE, Thomas C., M.D.

Publications:

"Chronic Illness in the University" - submitted to the Journal of the American College Health Association for publication.

Other Professional Activities:

Attended Annual Meeting of The American College Of Physicians, New York City, New York, April, 1966.

Research Grants and Projects:

"A Study of the Health Aspects of Sex Knowledge and Attitudes Among College Students". University of Massachusetts Faculty Research Grant #FR W11-67.

RALPH, James R., M.D.

Professional Activities:

Duke University Post-graduate Medicine Course, July, 1965, 1 week.

Medical Lectures series - Cooley Dickinson Hospital - 1965-66.

Medical Lectures series - U. S. V.A. Hospital, Northampton, 1965-66.

Four-College Health Association Clinical Meetings, 1965-66.

Consultant Attending Physician, U. S. V.A. Hospital, Northampton.

SCHOENBERGER, HENRY B., M.D.

Publications:

"Cerebellar Ataxia Associated with Infectious Mononucleosis". JOURNAL OF THE AMERICAN COLLEGE HEALTH ASSOCIATION, Vol. 14, pp. 213-215, February, 1966.

Research Grants and Projects:

"A Study of a System for Coding and Recording Outpatient Diagnostic Data in Anticipation of Factor Analysis by Digital Computer". University of Massachusetts Faculty Research Grant #FR-V11-65-(1).

Other Professional Activities:

"Computer Applications To A University Health Service", presented at Annual Meeting of the American College Health Association, San Diego, California, May 3-6, 1966.

University of Colorado Postgraduate course in Internal Medicine, Estes, Park, Colorado, August 9, 1956-August 13, 1965.

Chairman, Section meeting, University Honors Program, University of Massachusetts, Fall and Spring Semesters.

SNOOK, George A., M.D.

Publications:

"Interposition of the Joint Capsule in Traumatic Posterior Dislocation of the Hip". JOURNAL OF TRAUMA, Vol. 5, No. 3, pp. 358-361, May, 1965.

"Company Aid Men, E.T.O., 1945". MILITARY UNIFORMS IN AMERICA, article accompanying painting, Plate No. 266, with Eric I. Manders. Copyright 1965 by the Company of Military Historians.

Other Professional Activities:

Sports Conference, University of Rhode Island, Kingston, Rhode Island, August 18-19, 1966

PETERS, Howard A., Ph.D.

Professional Activities:

Attended joint technical meeting of the Northeastern Section-American Nuclear Society and the New England Chapter-Health Physics Society, Dedham, Massachusetts, May 5, 1966.

Presiding officer for the Environmental Sanitation Section of the New England Public Health Association Annual Meeting, June 15-17, 1966.

Section VI ACTIVITIES

A. Health Care

The past year has been a busy one, with outpatient utilization increased slightly above the amount anticipated on the basis of increased enrollment. The increase this year confirms the change noted last year by which the rate of utilization showed a lesser increment than during any of three previous years. It appears, therefore, that our outpatient service utilization has reached a relatively level and stable rate at which it may be anticipated to continue, barring some unusual circumstance, for the years immediately ahead.

Although a wide variety of health problems were met during the year, there were no startling developments or epidemics. A brief series of mild cases of influenza was recognized during February and March but at no time did these reach epidemic proportions and no serious consequences were noted. The diagnosis of influenza was made with reasonable certainty for about 204 patients.

There has been an apparent slight increase in the number of pregnancies among students which have been brought to our attention. The extent and significance of the increase is difficult to measure or interpret. It may only represent an increase in confidence on the part of student patients in bringing their intimate personal problems to the attention of the staff of the Health Services. Insofar as this may be true, it clearly reflects credit upon the staff and the manner in which personal problems are handled. We would like to believe that this explanation is valid.

The outpatient service continues to serve a large number of patients with a waiting period which, although regrettable, probably is not in excess of that which patients would find necessary in the office of private physicians. We continue to make a sincere attempt to encourage students to establish a relationship with a physician of his or her choice

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Although a wide variety of health problems were met during the year, there were no alarming developments or epidemics. A total number of mild cases of influenza was recognized during February and March but it was not thought these reach epidemic proportions and no serious complications were noted. The diagnosis of influenza was made with reasonable certainty for about 30% patients.

There has been an apparent slight increase in the number of pregnancies among students which have been brought to our attention. The extent and significance of the increase is difficult to measure or interpret. It may help somewhat at Indiana to continue to emphasize to the student purpose to prevent their pregnancy problems in the extension of the staff of the health service. Insofar as this can be done, it clearly reflects itself upon the staff and the manner in which personal problems are handled. We would like to believe that this planning is valid.

The outpatient service continues to serve a large number of patients with a welfare period which, although unfortunate, possibly is not in excess of that which patience would find necessary in the office of private physicians. We continue to make a figure attempt to encourage students to establish a relationship with a physician at all or the choice

This is done partly by posting physicians' outpatient hours well in advance and partly by encouraging the student to indicate the physician of his choice when visiting the Outpatient Department.

One of our most difficult problems continues to be that of scheduled routine physical examinations, such as for intercollegiate athletics, students in the School of Nursing,etc., at a time which will encourage reasonably thorough examination, will not encroach upon the time of patients who are acutely ill, and will be at hours which are reasonably attractive to the staff. Largely because of the busy and crowded conditions in the Outpatient Department, we have elected to perform these examinations out of scheduled clinic hours, usually by appointment in the evening. This is not an entirely satisfactory answer, but it is clearly preferable to performing these examinations at locations other than at the Infirmary (such as at the Athletic Field House) and probably superior to having them interspersed among patients with acute medical problems.

It is our hope that with reasonable increase of staff in the future there will be more opportunity for seeing patients by appointment. In our circumstances, however, it seems virtually impossible to anticipate satisfaction with a system which is primarily on an appointment basis.

Although final figures for the year are not available at this time, it appears that inpatient services, although increased, have not increased so rapidly in proportion to the student population as have outpatient services.

MENTAL HEALTH

With the addition of members of the professional staff, the Mental Health Service has continued to increase both individual and group psychotherapy services, the increase being in general proportionate to the increase in the student body.

Preventive mental health activities have engaged an increasing proportion of staff time and have moved in the direction of attempting to

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It is our hope that with reasonable increase of staff in the future there will be more opportunity for seeing patients by appointment. In our circumstances, however, it seems virtually impossible to anticipate satisfaction with a system which is primarily to be appointment basis.

Although final figures for the year are not available at this time, it appears that inpatient services, although increased, have not increased as rapidly in proportion to the student population as does outpatient services.

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Preventive mental health activities have engaged an increasing proportion of staff time and have moved in the direction of attempting to

catalyze analysis by administrators, faculty, and students of policies concerning the arrangements under which students live. Throughout the year there has been nearly continuous consideration and re-evaluation of University and student regulations, especially those involving residential living complexes. Faculty interaction has been stimulated through both planned and spontaneous meetings with key administrators and faculty personnel.

Special attention has continued to be directed toward work with the pre-professional training schools, especially nursing and education. The joint appointment with the School of Education of a psychologist has given some indication of the possibilities of cooperative effort in this area and has raised considerable hope for additional developments in the future. With the School of Nursing cooperative activity has been mainly at the faculty level with members of our Mental Health staff assisting with group interaction meetings which have resulted in a considerable increase in understanding of faculty-student relationships. The program of participation in the practical teaching of graduate students in psychology has been continued, with three students serving their practicum with us during the past year.

Research activity has been initiated in a cooperative study with the Department of Public Health of sex attitudes and behavior of college students.

Initial plans have been made for establishing a New England Regional Mental Health Treatment and Training and Research Institute, which will be devoted primarily to studying and meeting the needs of college age students who have emotional problems. It is hoped that this Institute can be established at a University center where student patients will be able to utilize the many therapeutic advantages of the University community.

B. Environmental Health and Safety

The most significant development during the past year has been the consistent increase in the use of radioactive materials on campus, an increase which apparently will continue at an accelerated rate in the near future. Inspectors of the Atomic Energy Commission, during a routine visit, brought to light a few discrepancies between our methods of controlling hazards and those prescribed by the AEC. These plus the anticipated rapid escalation in the use of sources of ionizing radiation point up the need for additional personnel, on a full-time basis, for controlling this problem.

Other activities of E.H. &. S. during the year have been an overall survey of residence hall kitchenettes and a housing survey of fraternities. Sanitary conditions in the kitchenettes were found to reflect the degree of use to which the kitchenettes had been subjected, with those being used for more complete meals generally in poorer conditinn. This finding is significant, especially when considered in the context of the recommendation that there be more freedom in the use of residence hall kitchenettes in the future.

Sanitary conditions in fraternities have on several occasions been found completely unsatisfactory, necessitating closing food service units until conditions were improved. Part of the problem is attributable to the necessity for using renovated, poorly designed, and totally inadequate units for food preparation areas. Part of the difficulty, however, can be attributed to nothing but inadequate supervision of common sanitary practices. This problem warrants more detailed attention in the future.

A course of instruction for all food service personnel was held during the year. This was well attended and seemed to serve a useful function. A course of this sort should be presented if not every year at least on alternate years.

8. Environmental Quality and Safety

Air sampling equipment has been aquired. This permits the evaluation in a more objective manner of the conditions in shops and laboratories where toxic substances are used and represents the beginning of what will have to be a rapidly expanding program in industrial hygiene control.

One significant development has been the dissociation of the food vending machine concession from the Athletic Council and its incorporation among the responsibilities of the Coordinator of Student Affairs. A manager of the machine vending program has been appointed and initial steps taken to assure routine sampling of vending machine products in cooperation with the Food and Drug Division of the Massachusetts Department of Public Health.

C. Health Education

There continues to be a lively interest on the part of many students for involvement in a more vital and helpful health education program. No way is seen at present, however, for instituting a universal program of health instruction; indeed, the prospects for this seem to grow dimmer each year, especially in view of the vast personnel resources which would be necessary to provide this type of instruction in a meaningful way.

Reliance has been placed, therefore, upon voluntary participation of students and staff in programs organized usually on a residence hall basis. More than half of the residence hall units has had one or more meetings with members of our staff to discuss health matters of mutual interest. These meetings have been well attended and the programs well received. Itappears that limitation of time on the part of students and our staff are the only factors which limit this program to its present extent.

As time permits, increasing use is made of the daily opportunities presented for instruction in the course of our personal contact with students. These opportunities are emphasized in the course of

orientation of new staff and nearly all members of the professional staff gain considerable satisfaction from this new aspect of health care.

D. Research

Modest research projects have been carried on during the past year. In the first place under the guidance of Doctor Schoenberger, there has been a study of the development of a system for storage and retrieval of data relevant to the health services provided students. For the first year, all outpatient visits have been coded, according to the International System of Classification of Disease, and these coded diagnoses have been recorded along with other pertinent data concerning age, sex, class, date and time of visit, services performed, etc. Although the results to date have been far from completely satisfactory, we are convinced that this can be made to work and that it will be a valuable tool in the future both for administrative analysis of service and for research purposes.

Doctor Schoenberger presented a discussion of the progress of this project at the 1966 annual meeting of the American College Health Association in San Diego. It was clear from the substance of the program at that time that we are in a position of leadership, at least among those who contributed information at that meeting.

The second project has been that of the development of a rapid slide agglutination test on capillary blood for the screening of patients suspected of having mononucleosis. We have found that this is a very reliable means of screening out those patients for whom a routine heterophile need not be done. We have found, in addition, that the rapid slide heterophile on many occasions becomes positive in advance of the conventional test. This test has the convenience of speed and the advantage of a small invest ment of time on the part of laboratory personnel.

It compares favorably in time, cost, and reliability with a commercially available test. The otherresearch project in which we have cooperated with the Department of Public Health has been a brief study of sex attitudes and behavior among college students. This preliminary study is considered as a pilot project for a major study planned for the future.

E. Staff.

We continue to be exceptionally fortunate in having an exceptionally well-trained and dedicated staff. Their interest in the welfare of student patients, in addition to their professional competence, has been a large factor in establishing the high level of confidence which the Health Services enjoys in the University community.

An unusually large increment was incorporated into the nursing staff very smoothly, largely as a result of a comprehensive and imaginative program of orientation. It is our conviction that a considerable amount of effort is justified in structuring and presenting this orientation program so that new members of the staff will be well informed concerning not only their duties but the duties of others and their collective obligations in the interest of the entire organization. It is imperative that not only nurses but all others be informed of the relationships among the departments and especially that they have first-hand knowledge of the means of communication available to everyone.

Almost equally important in maintaining a high level of morale and interest among the staff is a continuing series of meetings which serve a dual purpose of providing information and maintaining communication among different areas of interest. Staff members are encourage to attend meetings elsewhere on the campus as well as meetings at other schools and colleges. During the past year members of our professional and non-professional staffs have attended an Infection Control Conference

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in Boston, a New England College Health Association meeting in Cambridge, the New England Board of Higher Education Nursing Conference in Burlington, Vermont the Nursing Section meeting of the New England College Health Association at Colby Junior College, the New England Hospital Assembly in Boston, as well as several lectures and conferences on campus.

Of particular interest was the participation of our head housekeeper in the first course for executive housekeepers presented by the University Department of Public Health in cooperation with the Executive Housekeepers Association at the University of Massachusetts in July, 1965. Mrs. Germain was named to the Education Committee of this Association. Her interest in this program is typical of the high level of interest of all members of the Health Services staff.

F. Laboratory

The laboratory continues to be one of the most useful and progressive units of the organization. During the past year the supervisor of laboratory services, Mr. Leo Hall, has been involved in three research projects. (1) The development of a rapid slide presumptive heterophile test for capillary blood, (2) the study of SGPT values in mononucleosis, and (3) a study of the electrophoretic patterns of serum proteins in mononucleosis. Use of the laboratory has increased by 46% over that of last year, a tremendous increase in quantity. The laboratory is involved in the accreditation program of the College of American Pathologists and in the Approval Program of the Massachusetts Department of Public Health, Division of Laboratories. It has maintained an outstanding level of performance in each of these programs, a tribute to the quality of its services.

F. Laboratory

Section VII Special Projects or Programs

1. Evaluation of Sex Attitudes and Behavior

Already mentioned is the study initiated jointly with the Department of Public Health of sexual behavior and patterns in college students. This study was initiated by the discussion surrounding the request in January of a student who was pregnant and wished to continue in school and living in the residence hall throughout the second semester. Although this had not been permitted previously, no clear justification could be found for denying the request. On the other hand, there was considerable concern that granting the request might have "an unfavorable influence" upon the other occupants of the residence hall.

As a result, a research project was created jointly by the University Health Services, the Department of Public Health, and the Department of Sociology to evaluate the sex behavior and attitudes of women students in the residence hall in an attempt to determine the influence which the presence of this student had upon these attitudes. The study itself has been completed but the analysis of the data is unfinished at this time. It is safe to say, however, that this joint project created considerable interest and seems to have had no obvious deleterious influence on any of the participants.

2. Self-Care Unit for Upper Respiratory Infections

Nearly overcome with the usual deluge of uncomplicated respiratory infections, the staff opened a self-care unit for self treatment of uncomplicated respiratory infections modeled after a somewhat similar project at the University of Pittsburg. At this unit students are invited to make certain observations concerning their condition, are provided certain information upon which to make a judgment concerning the seriousness of their condition, are given specific warnings concerning complications, and on the basis of these advised as to whether or not self treatment is safe and advisable. During the month of April, May

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and June, approximately 5 per cent of the outpatient population availed themselves of this service. A brief followup has failed to reveal any serious complication which might have been attributed to this program. Essentially, the unit has provided analges ics, lozenges, and nasal decongestants which can be purchased over-the-counter in pharmacies, grocery stores, etc. The significant difference is the instructions given the student at the time the medication is procured.

3. Survey of Plans for the Future

In view of the anticipated need for doubling the size of the Infirmary in the immediate future, there have been initial discussions of the modifications of service which should be accommodated in a new addition. In particular thought has been given to the necessity for including dental service and possibly including some service for student dependents. In addition, there has been some discussion of a limited service for faculty members.

At a meeting with the local Medical Society it was agreed that care for urgent dental problems should be provided in the same manner as medical care now is provided for other conditions. However, the members of the Hampshire Medical Society were quite firm in a suggestion that care for student dependents, and particularly for faculty, should not be a concern for the University Health Services.

Following this preliminary skirmish, it was felt that more information should be obtained concerning the manner in which health care was available for student dependents. As a result, a questionnaire was devised, in cooperation with the Guidance and Counseling Service, and circulated among all married students. The returns when analyzed should be helpful in providing information as a base for planning for the future.

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Section VIII Future Plans and Needs

A. Space

The most urgent need of the University Health Services continues with increasing annual urgency, to be that of acquiring more space. A yearly reference has been made to the total inadequacy of the outpatient area, in particular, and of the areas for other ancillary services (laboratory and x-ray) as well. The time has come when it seems virtually impossible to accommodate any larger volume of outpatient visits in our present quarters.

The immediate answer to this problem appears to be a decision to find quarters in another building for the Mental Health Department, thus releasing the area now used by the Mental Health Department on the second floor for use of the outpatient services. This is a crucial and disappointing decision. Considerable effort has been extended to effect an integration between the mental health service and the other health services. It is our impression that this effort has been very fruitful, judging from the acceptance of mental health services. To have to separate these units is a serious disappointment and we realize a regrettable move which will take years to reverse completely. Nevertheles there seems to be no reasonable alternative which will be satisfactory for the minimum of three or four years before it will be possible to have expanded quarters in our present location.

Ultimately, the answer must be to have a considerable expansion of the Infirmary, which was opened only in 1961. The request for planning money is high on the capital outlay request of the University for the present fiscal year. If this planning money request is granted, we should be in a position to move ahead rapidly with specific plans for an addition to our building.

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B. Financial Resources

Early in the next fiscal year there should be a careful reevaluation and projection of our financial situation and the base of our support for the next three years. On the basis of this projection, we should be able some time during the first semester to make a recommendation to the Board of Trustees for a health fee, presumable increased, for the ensuing three years. Increase in the number of students has given us some opportunity for increased efficiency of operation. However, at the same time, we have been required to maintain our inpatient services open throughout the summer this year, thereby creating another factor of inefficiency. The escalation of salaries, especially for professional personnel, is a factor for which realistic provision must be made if we are to continue providing high quality health care in the future. All health manpower will become increasingly scarce during the next few years, and we must be in a position to compete realistically for the capable and interested personnel who can maintain the present high quality of health care.

C. Health Education

We continue to have a lively and sustained interest in providing the students with better health information in response to their continous requests. At present there seems to be no possibility of providing this on a universal or required basis; indeed, it is even doubtful that this is desirable. Nevertheless, we are concerned for finding new and better ways for disseminating health information to students so that they may be better informed about the positive features of good health as well as being aware in more than a vague way of the qualities of illness. We still feel that one of our most important missions in the long run is to provide students with a prototype of high quality health care, including health information, which will serve as a model for their being informed and providing themselves with high quality health care in the future.

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APPENDIX I

Summary of Laboratory and X-ray Services

Fig. 1 Summary of Year End Data

Laboratory

1965-66 Total Tests	23,745
1964-65 Total Tests	16,281
Increase	7,464

Increase in 1964-65 over 1963-64 - 4,370
Percent Increase 1965-66 - 46%

X-ray

1965-66 Total Number of Patients	2,775
1964-65 Total Number of Patients	2,195
Increase	570

Increase in 1964-65 over 1963-64 - 488
Percent Increase - 26%

APPENDIX A

Summary of Laboratory and Survey Services

Fig. 1 Summary of Tree Cut Data

APPENDIX III

UNIVERSITY OF MASSACHUSETTS
UNIVERSITY HEALTH SERVICES
MENTAL HEALTH DEPARTMENT SERVICES

ANNUAL REPORT JULY 1, 1965 to JUNE 30, 1966
(Estimated for June, 1966)

Professional Staff:

Psychiatrist: one full time (calendar year)
Psychologist: one full time (calendar year)
Psychologist: one full time (academic year)
Psychologist: one part time (40%) (academic year)
Psychologist: one full time (two months)

Total Number of Patients Seen:		827
Total Group Therapy Attendance:		367
Number of Student Participants:		28
Number of Sessions:		76
Patients Placed in Infirmary:		30
Total Number of Interviews:		2,983
Total Number of Conferences:		680
Student Instruction and Supervision:	52	
Speaking Engagements:	13	
Professional Conferences Attended Away:	3	
Professional Conferences Attended Home:	4	
Visits with Other Health Services:	6	
Consultations About Patients: (With parents, deans, heads of residence, counselors, faculty, police)	111	

APPENDIX III (continued)

Mental Health Services Annual Report, July 1, 1965 to June 30, 1966

Research Projects:	12
M. H. Staff Conferences: (Supervision, Education, Administrative)	157
Infirmary Preventive Mental Health:	70
University Preventive Mental Health:	206
Community Preventive Mental Health:	14
Staff Recruitment Interviews:	32

PLACEMENT & FINANCIAL AID SERVICES

UNIVERSITY OF MASSACHUSETTS

Amherst, Massachusetts

A N N U A L R E P O R T

(July 1, 1965 - June 30, 1966)

Robert J. Morrissey

Director

June, 1966

PLANNING & MANAGEMENT AID SERVICES

Midyear Progress Report

(July 1, 1975 - June 30, 1976)

ANNUAL REPORTS

PLACEMENT & FINANCIAL AID SERVICES

STAFF

Support staff, such as that of the Placement & Financial Aid Services continues to lag behind in terms of requirements to match the ever growing University. Our staff continues to show devotion to the University as a whole and to its own voluminous tasks in particular with a zeal that is deserving of commendation.

It is difficult to sort out any particular member of our clerical staff for special mention since all have worked so well. Without their constant attention to detail our problems would be insurmountable. Suffice it to say that Mrs. Cunningham Mrs. Hogan, Mrs. Jones, Miss Lenois, Miss Noska, and Miss Wallner have been the mainstay of the office.

It was with regret that we accepted, on March 1, the resignation of Miss Edith V. Antunes who had carried on the work of the Placement Officer for Women in an excellent manner. Mrs. Dorothy Baker (Hardesty), currently the Assistant Director of Placement at the State University at Albany, will be filling this position on July 5, 1966. We look forward to having her with us.

Mr. George E. Emery has continued to maintain a keen interest in the areas of work assigned to him and has beenespecially knowledgeable of the problems of the draft and veterans affairs and is continually planning to cope with the increasing burdens of these affairs in the days ahead.

Mr. Robert W. Gailey is proving to be an excellent addition to our staff. He shows continued concern for the individual student and is alert in making suggestions for improvement of placement techniques to be of further aid to the students, the University, and employers. His willingness to aid in areas not originally assigned to him is deeply appreciated.

Mr. Lynn E. Santner is an efficient member of our staff who relates well with students, faculty, et al. He has gained a firm knowledge of the whole operation and while cognizant of major problems and deliberations accomplishes the detail in a quiet and efficient manner.

Mr. John Siegrist will join our staff on June 13 with initial duties in the affairs of the College Work Study Program.

FUNCTIONS

(In Alphabetical Order)

1. Career and Financial Counseling, although offtimes seemingly overshadowed by the volume of office detail, remains the most important function of these services. Students receive eclectic counseling regarding their problems in relation to careers and finances. Information ranging from off campus sources of financial aid to employment opportunities and graduate fellowships is made available.

2. Draft Registration and Student Certification require answering a deluge of student queries and calming concerns and apprehensions, as well as completing the ever mounting clerical task. 6,500 Selective Service Forms 109 for undergraduates and Forms 103 for graduate students (information that defers a student from the draft) have been processed this year. One copy is retained here, one is sent to the local draft board, and one is sent to the registrant. New data processing procedures are being developed to cope with this volume of work, and the new requirements calling for student rank in class.

3. Employment Interviews were conducted by 476 employers. To arrange for the 4,292 interviews held requires extensive detailed arrangements. Appointments are made to fit student schedules, employers are received, given student credentials, explanation and information on University procedures and policies. Luncheons and other arrangements are made for employers to meet faculty. 106 scheduled visits were cancelled due to lack of student interest in these employers.

4. Graduate Degree Placement with recruiting by employers specifically and solely for master and doctor candidates has increased notably. Many more graduate students are registering with the Service and many more requests are being made for graduate student credentials to be forwarded to employers. 318 graduate students registered with the Placement Office and 21 employers visited the campus in October and November for science and engineering majors at the master and doctoral level. They conducted 184 interviews.

5. Graduate School Recruitment - 12 graduate schools, including Stanford, Harvard, and the like, visited the campus to discuss their programs with interested seniors.

6. Job Placement presents a somewhat confused picture this year. Although definitely a seller's market for the students, the military draft situation, the impetus to attend graduate school (some men openly state they are going to grad school to avoid the draft), plus the larger graduating class with a few students combining low academic record with poor personality; - all tended to cloud the picture. While the affluent society is providing a myriad of jobs, not all students are wanted and not all students want the jobs available. Thus some students remain in a quandary at graduation, fumbling with ideas but not facing reality. Time usually finds these students working at less desirable jobs.

[illegible]

[illegible]

1. [illegible] and financial [illegible] dilemmas seemingly overshadowed by [illegible]. Despite the most important function of these [illegible], [illegible] was [illegible] primarily about politics in all their [illegible] and [illegible]. Talented students sought [illegible] at [illegible] to explore opportunities and problems [illegible] would [illegible].

2. [illegible] [illegible] [illegible]

7. Occupational Information and Career Literature seems to multiply in volume yearly. Parkinson's Law knows no bounds here. In addition to employer brochures, career guidance books and pamphlets are received as well as information on graduate schools, fellowships, assistantships, foreign opportunities, summer work, etc. It is hoped that the new administration building will have more space for display of this material and adequate reading area for students.

8. Opportunity Grants, offered for the first time under the Higher Education Act of 1965, are now being distributed to qualifying incoming freshmen and will be further distributed to upperclassmen during the summer. Administratively, these grants totaling $235,460 are difficult to award because of limiting factors set by the federal government. Basically for needy students irrespective of scholarship, they comprise awards of $200 to $800 depending on parental contribution as computed by College Scholarship Service techniques. An additional $200 may be granted if the student is in the upper half of his class and the total award must be matched by an equal award of money from the University such as scholarships, loans, grants, etc., but the total amount cannot exceed the total financial need of the student.

9. Loans are available in many forms; University short term loans, University long term (Mass. Assembly) loans; National Defense Education Act loans; graduate and foreign student loans, Nursing Student loans, Massachusetts Higher Education Loans (obtained through commercial banks after appropriate clearance through Placement & Financial Aid offices). 2,145 students borrowed $1,033,070 this year.

10. Part-time Work is desired by more and more students. Many students campaigned during the year for higher wages, better working conditions in some instances and other minor complaints. A student committee to handle grievances and report them to this office has now been set up. A study of wages and conditions at other schools was conducted by this committee and new part-time work directives will soon be forthcoming. 2,705 students participated in some form of part-time work ranging from only a few hours work to 10 months, earning a total of $517,202.30 from July 1, 1965 to April 30, 1966. An estimated amount of $86,000 will be earned from May 1, 1966 to June 30, 1966. Of the July to March earnings $205,477.43 was from various grants and $311,724.87 was from 03 funds. 189 students earned over $600 and 1,306 students earned less than $100. Average earnings were between $100 and $200.

11. Scholarships and Grants-in-Aid are not keeping pace with the large numbers of students applying for same. The encouragement by the federal government programs is causing increasing numbers of students to enter college with insufficent funds. Last fall 3,580 freshmen applications for financial aid were received with 1,534 of these from students who actually entered in the freshman class. 2,208 upperclass students applied for scholarships for the year 1965-66. In contrast and continuing the upward trend 4,500 freshmen and over 3,000 upperclassmen have applied for financial aid for 1966-67.

12. Summer Employment continues to present a problem with which we do very little because of limitations in staff time. Our only assistance to students in this regard is to compile card files of former summer employers of our students and suggest they apply directly to see if openings exist this year. We should be actively searching out new opportunities for our students.

13. Undergraduate Assistantships awarded to applicants for scholarships have proved very popular with students and faculty. This year 293 students received their $400 monetary award while working 8 hours per week in academic departments giving additional educational experience.

14. Veterans Affairs were reported in last year's annual report as ceasing to exist. While we have had a year of reprieve with only "War Orphans" (children of deceased veterans) enrolled this year under Public Law 634, it is evident that we will be heavily burdened in this area again after June 1, 1966 when the new G.I. Bill goes into effect.

15. Work-Study Program changed radically under the Higher Education Act of 1965. All financially needy students may now work under this program whereas previously only those in dire poverty were eligible. During the early part of the year under the original program only 52 students were working but under the new regulations 80 students were added making a total of 132 on this program.

13. The Canadian Antisatellite proved to be efficient for deployment from powerful platforms with pressure hull. This year [illegible] [illegible] [illegible]

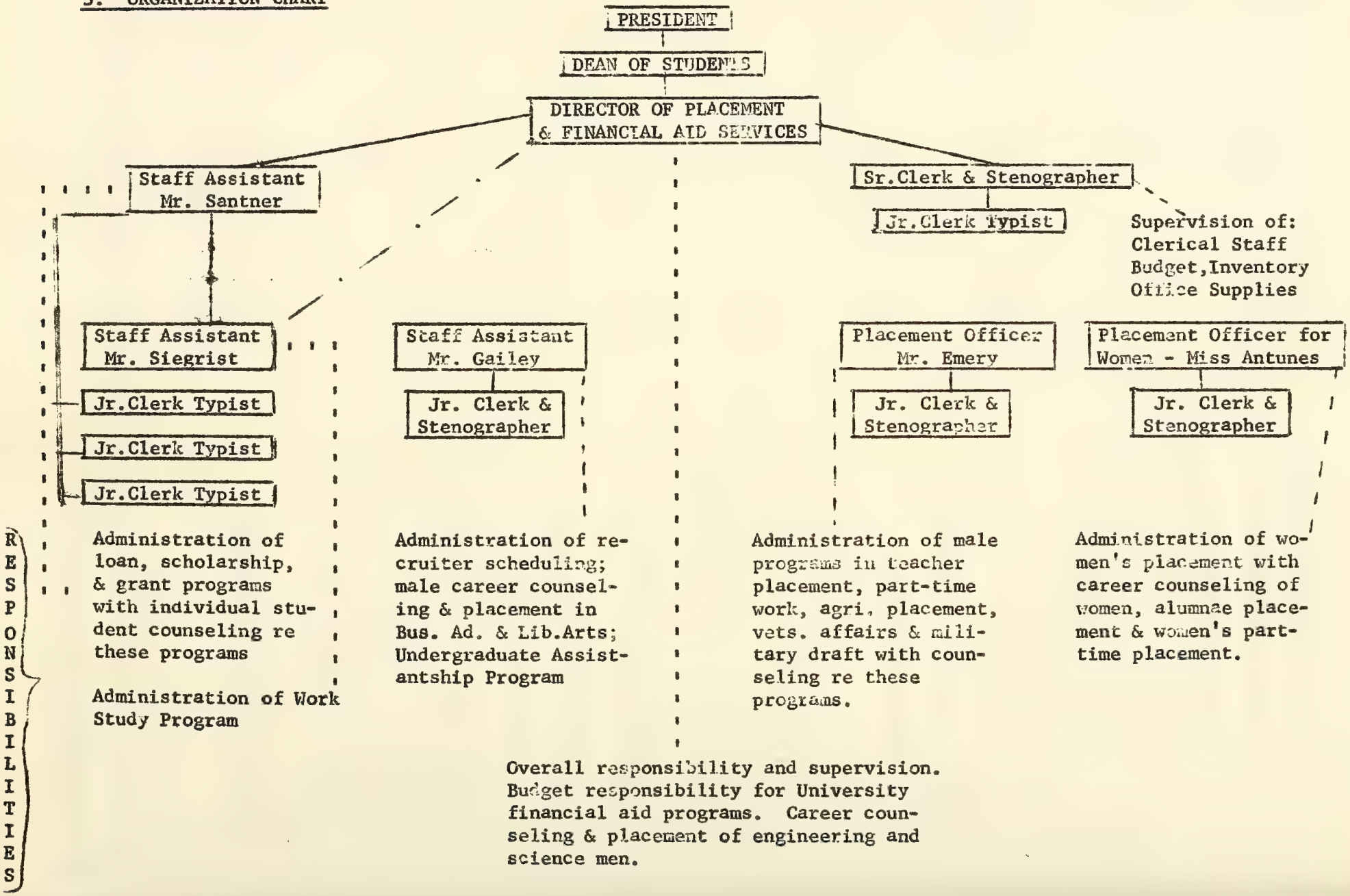
1965-66 ANNUAL REPORT OF THE PLACEMENT & FINANCIAL AID SERVICES

As per the memorandum from the Secretary of the University dated April 25, 1966, the following report of the Placement & Financial Aid Services for the period July 1, 1965 through June 30, 1966, is submitted. Supplemental data includes comments on staff and functions, appendixes with statistics on the various programs controlled through those services and complete data on the class of 1965. Statistics on the after graduation plans of the class of 1966 will not be available until after September.

1. APPROPRIATION - Fiscal Year	1963-64 Actual Expenditure	1964-65 Actual Expenditure	1965-66 Allotment
Student Labor - 03	2,753.71	2,376.24	3,725.00
Travel - 10	578.15	605.71	540.00
Printing - 11	222.15	333.47	400.00
Repairs - 12	66.42	352.60	250.00
Special Supplies - 13	737.74	646.50	800.00
Office & Adm. Expense- 14	5,357.41	3,573.84	3,385.00
Equipment - 15	393.25	637.21	350.50

2. PERSONNEL - Number in each rank	Sept. 1963	Sept. 1964	Sept. 1965
Director of Placement and Financial Aid Services	1	1	1
Assistant Director of Placement and Financial Aid Services	1	1	-
Placement Officer for Women	1	1	1
Placement Officer	1	1	1
Staff Assistant	1	1	2
Senior Clerk & Stenographer	2	2	1
Junior Clerk & Stenographer	2	2	3
Junior Clerk Typist	2	2	2

3. ORGANIZATION CHART



4. STUDENTS AND CLIENTELE SERVED

A. Students - Some 22,426 visits to these offices were made by all categories of students - incoming freshmen, undergraduates in all schools and classes, and graduate students.

	1963-64	1964-65	1965-66
No. of Seniors served and counseled re career plans and job placement	1,184 served counsel.	1,178 995	1,495 1,234
No. of Seniors registered with Placement Service	-	1,097	1,105
No. of Grad. Students registered with Placement Service	-	135	318
Frosh, Soph, Jr., counseled re career plans (approx. figures)	250	250	300
Alumni served & counseled	205	150	351
Part-time student workers (See Appendix A)	2,039	2,273	2,705 (inc.132 Work Stu
Students counseled and/or served re loans (See Appendix B)	1,112	1,523	2,145
Students served re scholarships & financial aid (See Appendix C)	2,991	4,315	5,788
Students served and/or counseled re military draft (See Appendix D)	2,190	4,169	6,500
Veterans served (See Appendix D)	69	70 (50 war orph)	69 (all war orp
TOTAL STUDENTS SERVED	10,040	16,155	22,010

B. (1) Clientele - Employment Recruiters (See Appendix E)

	1963-64	1964-65	1965-66
No. of representatives from industry	354	302	330
No. of representatives from schools seeking teachers	78	136	97
No. of government representatives	41	46	41
No. of non-profit or social service agency representatives	2	4	8
TOTAL REPRESENTATIVES	475	488	476
Interviews held on campus	3,950	4,487	4,292

B. (2) Clientele - Parents, incoming freshmen, legislators, interested persons visit the office, telephone, write, wire, concerning scholarships, loans, grants, and part-time work. Industrial representatives, employers from federal, state and local governments, and various agencies as well as school administrators also visit the office, phone, write, wire giving information on jobs, company policy, aid to education, and request background information on seniors and former graduates.
Semi-accurate statistics indicate the following:

Incoming telephone calls	-	17,827
Incoming mail	-	61,028
Outgoing mail		552,193

5. PROFESSIONAL ACTIVITIES

(1) Conducted a 2 day conference on campus for the Placement & Financial Aid Directors of the six New England State Universities. This was attended by all staff of these services.

(2) The Director and Mr. Santner attended the College Entrance Examination Board and College Scholarship Service meetings in New York.

(3) Mr. Gailey developed a Selective Service Convocation with Mr. Carr, State Director of Selective Service, and representatives of each military service. This convocation was moderated by the Director of these Services.

(4) The Director was appointed to a panel of consultants for the College Scholarship Service to visit other colleges and aid them in the development of their financial aid programs.

(5) Mr. Emery has been planning for an improved data processing system to handle the military draft student certification.

(6) Mr. Gailey planned and participated in a panel discussion for the Economics Association.

(7) Mr. Santner spoke to East Longmeadow Community Scholarship Group.

(8) The Director gave talk to New England Scholarship Group in Springfield.

(9) Mr. Santner participated in panel discussion of financial aid at Mt.Graylock and Pittsfield High Schools.

(10) The Director attended a Peace Corps Liaison Officers meeting in Maryland.

(11) Mr. Gailey and Mr. Santner gave talks in class on Student Personnel Services in Higher Education.

(12) The staff, with a large number of faculty, attended a CIA dinner held locally.

(13) Mr. Gailey talked to a joint meeting of all Male Dormitory Housemothers concerning Placement & Financial Aids. Also attended several night meetings in dormitories discussing career opportunities.

(14) On invitation, the Director visited the Xerox, General Electric, and Goodyear corporations to learn of opportunities for our graduates.

2. (2) Clients - Parents, Incoming Creditors, Legislators, Interested Parties, visit the office, telephone, write, etc., concerning relatives, job, grants, and part-time work. Industrial representatives, employers in general, seeks and local personnel, and various agencies as well as school administrators also visit the office, phone, write, etc. Give information on loan, company policy, aid to education, and request background information on society and former graduates. Head-counts activities indicate the following:

Incoming telephone calls	=	17,(2)
(Count: unit)	.	61,932
Origin: unit		837,777

3. MULTIPLE-UNIT ACTIVITIES

(1) Five rated & 2 day conferences on campus for the Personnel & (Special) and Director-ate of the six New Mexico State Extension. Unit was awarded by all staff to those members.

(2) The Director had one, 1 year, attended the College Public Information Conference and Policy Interpretation Service meetings in San Juan.

(3) Six County Agricultural Service Agents were employed with Mr. Chris Jones, Director of Agricultural Service and Conservation in this Extension Service. This cooperation was conducted by the Extension Service.

(4) The Director was selected to a seat of general duty for the College Industrial Service, to visit a major college and did some in the development of their educational and programs.

(5) Mr. Jones was elected to serve on several State Agricultural Service in the Extension Service.

(6) Mr. Jones planned and participated in a panel discussion for the Chamber Executive.

(7) Mr. Thomas spoke to West Independence Chamber Industrial Corps.

(8) The Director gave talk to The Regional Vocational Group in Springfield.

(9) Mr. Jones attended Regional Industrial Council at the Industrial and Vocational High School.

(10) The Council approved a state Corps Liaison Director position in Missouri.

(11) Mr. Jones and Mr. Director gave talks to the Special Personnel Meeting in Kansas City.

(12) The staff, with a large number of faculty, followed a CDI line said Industry

(13) Mr. Jones talked to a Junior meeting of all duty Personnel Conference and Training Personnel & Vocational club. Also attended several other meetings in Washington on Industrial-related opportunities.

(14) In addition, the Director visited the Kansas Personal Service, and Coordinator Corporation to Industrial Corporations for our program.

(15) The Director and Mr. Santner attended U. S. Office of Education Student Aid Meetings in Springfield.

(16) Mr. Santner attended the College Scholarship Service meetings in Providence, Rhode Island.

(17) Mr. Gailey delivered a presentation to the Deans and Department Heads of the College of Arts and Science concerning the placement function and the problem of senior registration.

(18) The Director was selected as Team Chairman of a visitation team for College Placement Services to the Atlanta University Center to aid the development of centralized placement services there. This is an ongoing project.

(19) Mr. Santner completed U.Mass. short 4 weeks Computer Programming Course.

(20) Mr. Gailey presented a program concerning career opportunities at a student-faculty meeting of the Government Department.

(21) Miss Antunes participated in many affairs during the year relative to women in placement.

(22) Mr. Gailey, on invitation, visited New England Telephone & Telegraph and Paul Revere Life Insurance Companies to become better informed of opportunities for our graduates.

(23) Miss Antunes participated in many dormitory evening meetings discussing careers for women.

(24) Mr. Gailey attended a conference for Placement Officers in Saratoga Springs developed by the New York Civil Service Commission.

(25) The Director attended the Eastern College Personnel Officers Spring Workshop in Stratford, Connecticut.

(26) Mr. Gailey visited Director of Placement and Director of Financial Aids at the University of Tennessee while in Knoxville.

(27) The Director gave a talk on part-time work at the College Scholarship Service symposium for financial aid officers in New York.

(28) Mr. Santner and Mr. Gailey are continuing studies toward M.Ed. Degrees.

(29) Miss Antunes attended E.C.P.O. Fall Conference.

(30) Miss Antunes and the Director attended the S.W.A.P. Conference.

(31) The Director attended College Scholarship Service meetings in Plymouth as guest consultant.

5. MAJOR ACCOMPLISHMENTS

A. Revised data processing program for computing financial need of students using new College Scholarship Service techniques. This will now be done at the Computer Research Center.

(15) The Director and Mr. Sumner attended U. S. Office of Munitions Board Meeting in Washington.

(16) Mr. Sumner directed the College Subscription Survey to insure fidence, Bonds To Loan.

(17) Mr. Gailey conferred a presentation to the Trust and Investment Board of the College of Arts and Science concerning the placement function and the problem of course registrations.

(18) The Director was selected as Team Chairman of a visitation team to College Division Service to the Albion University Center to aid the performance of accelerated placement services there. This is an important profess.

(19) Mrs. Smith completed U.Mass. short A Week Course Programming course

(20) Mr. Gailey received a program advertising medical specialties at a statement-of-all meeting of the Department Executives.

(21) Miss Anton participated in many efforts during the year relative to women in industry.

(22) Mr. Gailey, on vacation, visited the Eastern Division C Laboratory and Small Tools (IA Industrial Corporation or Bureau Survey Planned at operations for new products.

(23) Miss Anton participated in many duplicating meeting placement counsel for women.

(24) Mr. Gailey attended a conference for Placement Officers to discuss Special problems by the New York Civil Service Commission.

(25) The Director attended the Eastern College Personnel Officers Spring workshop in Atlantic City, New Jersey.

(26) Mr. Gailey visited Director of Placement and Director of Financial Aid at the University of Tennessee while in Knoxville.

(27) The Director gave a talk on Professional Placement Service Services Employers for Financial Aid Officers in Fall term.

(28) Mrs. Barbara and Mr. Gailey are presently reading files for vacancies.

(29) Miss Anton attended I.C.P.O. Fall Conference.

(30) Miss Jackson and the Director attended the I.M.C.F. Conference.

(31) The Director attended College Scholarship Service meeting in Illinois at Evanston, Illinois.

5. MAJOR ACTIVITIES FOR 1960

A. Extend data processing program for computer financial need of students using the College Scholarship Service Application. This will be done at the Computer Research Center.

B. Put out new directions on undergraduate assistantship and Work Study programs coordinating on a color code with IBM staff.

C. Developed procedure for distributing new Educational Opportunity Grants.

D. Took care of a staggering load of students, recruiters, financial aid applicants with all attendant details with a shortage of staff (both professional and clerical).

E. Refined procedures for receipt and distribution of job information.

F. Continue to revise and revamp form letters and other pamphlets and brochures used in our functions.

7. SPECIAL PROJECTS

A. Held conference in August for the Placement & Financial Aid Officers of the six New England State Universities.

B. Report on financial aid questionnaires completed but requires refinement.

C. Beginning discussions of data processing procedures in placement.

D. Coordinated with College Placement Council to bring GRAD system (data processing of credentials for employers) to our alumni. (See article in Massachusetts Alumnus - Spring 1966).

E. Are being involved in some off campus projects under the Work Study Program.

8. FUTURE PLANS AND NEEDS

A. As requested in the budget report we are in need of a professional person to handle teacher placement and we still need additional clerical help.

B. We need to upgrade our clerical positions to retain our personnel.

C. Our travel and equipment budgets continue to fall far short of our needs. These services require constant liaison with the rest of society and the changing conditions of all of our functions require attendance at local, state, and national meetings and conferences.

Appendix A

STUDENT PART-TIME EMPLOYMENT

	Women Working	Men Working	Total Students Working	Total Earnings
1963-64	905	1,379	2,284	$299,766.(to Mar.1)
1964-65	1,007	1,266	2,273 (to Apr.1)	$401,588.(to Apr.1)
1965-66	1,224	1,349	2,573 (to May 1)	$517,202.(to May 1)

$205,477. in grants $311,725. 03 funds Total $517,202.

It is expected that approximately $85,000 will be spent on part-time work in May and June as follows:
Approx. $24,000 in grants Approx. $61,000 in 03 funds
This would make an approximate grand total for the year of $602,202.

July 1, 1965 to May 1, 1966

	1966	1967	1968	1969	Stockbridge and Special	Grad. Student.	Total
No.employed from each class	518	684	548	347	102	374	2573

Total earnings in '66 - $121,811 '67 - $127,641 '68 - $67,018 '69 - $22,935
each class Stockbridge & Special - $17,479 Grads. - $160,318

Earnings	No. of Students	Percent Working
Percent and No. of students who earned over $600	189	7%
Percent and No. of students who earned over $500 but less than $600	59	2%
Percent and No. of students who earned over $400 but less than $500	105	3%
Percent and No. of students who earned over $300 but less than $400	171	7%
Percent and No. of students who earned over $200 but less than $300	272	11%
Percent and No. of students who earned over $100 but less than $200	521	20%
Percent and No. of students who earned less than $100	1,256	50%

Percent of total student body who had part-time employment = 21%

WORK-STUDY PROGRAM UNDER ECONOMIC OPPORTUNITY ACT OF 1964 HIGHER EDUCATION ACT OF 1965

July 1, 1965 to May 1, 1966

Work-Study Assignments made	132
Total amount expended	$28,656.10

Approximately $14,000 will be expended in May & June, 1966, under this program

Appendix B

LOANS

	1963-64	1964-65	1965-66
A. University Loans - Short Term			
Number Granted	132	136	210
Total Amount	$20,048.00	$19,881.00	$28,148.00
Average Amount Granted	$152.00	$146.00	$134.00
B. University Loans - Long Term			
Number Granted	34	22	22
Total Amount	$10,195.00	$6,900.00	$7,450.00
C. National Defense Education Act Loans			
Number Granted	529	691	1,006
Total Amount	$273,200.00	$453,075.00	$489,165.00
Average Amount Granted	$516.00	$655.00	$486.25
D. Graduate & Foreign Student Loans (Graduate students also receive NDEA Loans)			
Number Granted	-	21	48
Total Amount	-	$1,645.00	$4,360.00
E. Nursing Student Loans			
Number Granted	-	1	26
Total Amount	-	$450.00	$13,700.00
F. Massachusetts Higher Education Loans (HELP Loans through commercial banks after appropriate clearance through Placement & Financial Aid Office)			
Number Granted	417	652	833
Total Amount	$203,966.00	$272,562.00	$490,247.00
Average Amount Granted	$489.00	$418.00	$588.00
TOTAL NUMBER OF ALL LOANS	1,112	1,523	2,145
TOTAL AMOUNT OF ALL LOANS	$507,409.00	$754,513.00	$1,033,070.00

Appendix A

[illegible]

A. University Loans - Short Term			
Number Granted	134	159	210
Total Amount	$ 90,140	[illegible]	$[illegible]
Average Amount Granted	$ 672.69	$ 494.00	$ [illegible]
B. University Loans - Long Term			
Number Granted	24	22	22
Total Amount	$[illegible]	$ [illegible]	$ [illegible]
C. [illegible] Depression Relief Loans			
Number Granted	3	27	[illegible]
Total Amount	$ [illegible]	$ [illegible]	$ [illegible]
Average Amount Granted	[illegible]	[illegible]	[illegible]
D. [illegible] Student Scholarship (One Time)			
Number Granted	-	-	64
Total Amount	-	$ [illegible]	$ [illegible]
E. Special Emergency Loans			
Number Granted	-	1	14
Total Amount	-	$ 750.00	$ [illegible]
F. Inter-Library Loan Reciprocal Program			
(Table Lists Number Borrowed by			
Other Libraries from Main Library			
Main Account & Special Accounts)			
Number Granted	311	402	419
Total Amount	$[illegible]	$ [illegible]	$ [illegible]
Average Amount Granted	$ [illegible]	$ [illegible]	$ [illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	$ [illegible]	$ [illegible]	$ [illegible]

Appendix C

SCHOLARSHIPS, GRANTS-IN-AID, AND UNDERGRADUATE ASSISTANTS

	1963-64	1964-65	1965-66
A. Entering Freshmen			
No. of entering freshmen applying	1,850	2,800	2,990
No. granted to freshmen	215	241	360
Total amount in Scholarships	$94,357.00	$116,953.00	$119,749.00
Total amount in Grants-In-Aid	$3,378.00	$3,761.00	$2,382.00
B. Upperclass			
No. of applicants for Scholarships and Grants-in-Aid	1,006	1,450	2,208
No. of awards made in amounts ranging from $50 to $1,300	613	591	777
Total amount in Scholarships	$163,200.00	$275,018.00	$193,931.00
Total amount in Grants-in-Aid	$17,430.00	$16,268.00	$12,812.00
No of Undergraduate Assistantships	314	324	293
Total amount in Undergrad. Assistant.	$105,800.00	$118,200.00	$111,950.00
C. Summer Scholarships			
No. of awards	-	65	79
Amount of awards	-	$17,599.00	$13,250.00
D. Total No. of applicants for scholarships	3,842	4,315	5,788
E. Total amount of scholarships, grants-in-aid and undergraduate assistantships	$384,165.00	$474,111.00	$454,074.00
F. Outside Scholarships			
No. of students receiving outside scholarships of which we are aware	1,311	1,176	2,096
Total amount of outside scholarships of which we are aware	$435,496.00	$355,947.00	$415,183.00

11	Graduate students received					11	Outside scholarships amount		$3,310.00
115	Students in Class of			1966	received	127	"	"	$30,091.00
196	"	"	"	1967	"	224	"	"	$42,196.00
245	"	"	"	1968	"	297	"	"	$66,085.00
1,097	"	"	"	1969	"	1,436	"	"	$271,968.00
1	"	"	"	1970	"	1	"	"	$250.00

Appendix C

RECLAMATION, GRANTS-IN-AID, AND CONSERVATION ASSISTANCE

1. Federal aid projects			
No. of wildlife restoration projects	1,750	1,687	1,550
No. states to benefit	315	304	309
Total amount in Restoration Fund	[illegible]	$119,923,000	$113,724,000
Total amount in Distribution	[illegible]	$3,705,000	$3,550,000
2. Hunting			
No. of licenses for Restoration projects	7,004	6,850	7,300
No. of hunter education courses conducted	214	301	275
Total amount in Restoration	$[illegible]	$[illegible]	$[illegible]
Total amount in Distribution	$[illegible]	$[illegible]	$[illegible]
No. of hunter education participants	11[illegible]	[illegible]	250
Total amount in Restoration	$[illegible]	$[illegible]	$[illegible]
3. Fishing			
No. of licenses	-	62	75
Total amount	-	$[illegible]	$[illegible]
Total No. of sport fish [illegible]	[illegible]	4,844	5,100
Total amount of money [illegible]	$[illegible]	$4,744,111.00	$[illegible]
4. [illegible]			
[illegible]	[illegible]	[illegible]	[illegible]
Total amount of [illegible]	$[illegible]	[illegible]	[illegible]
5. [illegible]	[illegible]	[illegible]	[illegible]

Appendix D

VETERANS

	1963-64	1964-65	1965-66
TOTAL VETERANS ENROLLED	30	20	3
Veterans enrolled under Public Law 550 (Korean War Vets)	30	20	0
Veterans enrolled under Public Law 894 (Disabled Veterans)	0	0	3
No. of students enrolled under Public Law 634 (War Orphans)	39	50	69

NOTE: All training under Public Law 550 terminated on January 31, 1965
The number of children of deceased veterans continues to rise.

MILITARY DRAFT

This office serves as a registration center for male students reaching their 18th birthday. 205 students registered for the draft here this year.

Forms (109 and 103) for student deferment have been completed in triplicate - one copy to draft board, one to student, one retained here, as follows:

1963-64	1964-65	1965-66
2,190	4,169	6,500

Appendix D

TABLE 1

	1969-70	1974-75	1975-76
TAX WITHHELD BY:			
Veterans enrolled under Public Law 550 (Korean War Veterans)	30	40	7
Veterans enrolled under Public Law 894 (Disabled Veterans)	1	-	1
Pre-Korean veterans enrolled under Public Law 550 (Korean War Veterans)	35	50	12

NOTE: All training under Public Law 550 terminated on January 31, 1965
The number of children of deceased veterans eligible to train.

PRELIMINARY DRAFT

This effort serves as a regulation center for all veterans enrolled in training under Public Law 550, according to the needs of the veteran.

There (150 and 10') no student documents have been calculated to produce by [illegible] and is planned, one is planned, one hundred [illegible] is [illegible]

1969-70	1974-75	1975-76
7,130	6,500	6,500

REPORT ON THE CLASS OF 1965

The attached information relates to the after graduation plans of 1,342 members of the Class of 1965. Whether because of size of the student class, lack of staff in the Placement & Financial Aid offices, poor communications, or whatever, we have a larger number of unknowns and can report on only 63% of the class.

18% of the class or 248 students went to further studies. Of these, 2 entered Dental School, 18 entered Law School, 4 entered Medical School, and 4 entered Theological Seminary.

Other facts to be noted are as follows: 8 entered the Peace Corps, 3 entered the VISTA program, 65 received assistantships or fellowships ranging in amounts from $1,000 to $5,000. Fifty-seven percent of the employed graduates are working in Massachusetts, 13% are in Connecticut, and 10% are in New York State, while the remainder are located in 24 other states and overseas.

In the College of Agriculture, 33% (22 out of 67) went on to graduate school.

In the College of Arts & Sciences, 21% (168 out of 771) went on to graduate school and 15% (126 out of 771) accepted teaching positions.

In the School of Education, 70% (90 out of 127) accepted teaching positions.

In the School of Business Administration, 17% (18 out of 103) continued their education.

In the School of Engineering, 24 went on to further study with the majority (60%) accepting engineering positions.

In the School of Physical Education, 41% (22 out of 49) went into teaching and 7 went on to further study.

In the School of Home Economics, 5 went into teaching and 13 into home economist work.

In the School of Nursing, 30 out of 36 have gone into staff nursing.

In the Stockbridge School of Agriculture, 27% (47 out of 177) went on to further study.

Class of 1963

		Further Study	Non-Teaching Jobs	Teaching	Military Services	Plans Pending or Seeking Jobs	Unknown
College of Agriculture							
Male Grads	65	22	24	1	10	1	7
Female Grads	2	0	0	0	0	0	2
Total	67	22 (33%)	24 (35%)	1 (1.4%)	10 (14%)	1 (1.4%)	9 (13%)
College of Arts & Sciences							
Male Grads	481	131	56	24	28	4	238
Female Grads	290	37	70	56	0	0	127
Total	771	168 (21%)	126 (15%)	80 (10%)	28 (3%)	4 (.5%)	365 (47%)
College of Education							
Male Grads	2	0	0	1	1	0	0
Female Grads	125	4	1	89	0	0	31
Total	127	4 (3%)	1 (.7%)	90 (70%)	1 (.7%)	0	31 (24%)
School of Physical Education							
Male Grads	31	7	4	5	3	1	11
Female Grads	18	0	0	17	0	1	0
Total	49	7 (17%)	4 (7%)	22 (41%)	3 (5%)	2 (3%)	11 (20%)
School of Business Administration							
Male Grads	100	18	35	3	6	0	38
Female Grads	3	0	1	0	0	0	2
Total	103	18 (17%)	36 (35%)	3 (3%)	6 (6%)	0	40 (39%)
School of Engineering							
Male Grads	151	24	91	0	4	0	32
Female Grads	1	0	1	0	0	0	0
Total	152	24 (16%)	92 (60%)	0	4 (3%)	0	32 (21%)
School of Home Economics							
Male Grads	0	0	0	0	0	0	0
Female Grads	27	0	13	5	0	0	9
Total	27	0	13 (50%)	5 (19%)	0	0	9 (33%)

		Further Study	Non-Teaching Jobs	Teaching	Military Services	Plans Pending or Seeking Jobs	Unknown
School of Nursing							
Male Grads	0	0	0	0	0	0	0
Female Grads	36	1	30	2	0	0	3
Total	36	1 (2%)	30 (83%)	2 (6%)	0	0	3 (7%)
Department of Public Health							
Male Grads	6	4	2	0	0	0	0
Female Grads	4	0	3	0	0	0	1
Total	10	4 (40%)	5 (50%)	0	0	0	1 (10%)
Totals							
Male Grads	836	206	212	34	52	6	326
Female Grads	506	42	119	169	0	1	175
Total	1342	248 (18%)	331 (24%)	203 (15%)	52 (4%)	7 (.5%)	501 (37%)
Grand Totals							
Graduates	1342	248 (18%)	331 (24%)	203 (15%)	52 (4%)	7 (.5%)	501 (37%)

Professional Schools: Dental - 2; Law - 18; Medical - 4; Theological - 4. PEACE CORPS: 8. VISTA: 3.

Stockbridge School of Agriculture		Further Study	Non-Teaching Jobs	Teaching	Military Service	Plans Pending or Seeking Jobs	Unknown
Male Grads	171	47	98	0	5	0	22
Female Grads	6	0	5	0	0	0	1
Total	177	47 (27%)	103 (59%)	0	5 (3%)	0	23 (19%)

PEACE CORPS

1965 Graduates

Men

Basile, Michael L. - Government

Boyd, Donald W., Jr. - Government

Chamberlain, Donald - Government

Donovan, William R. - Government

Ginkus, Richard E. - Forestry

Hanley, Thomas B. - Government

Pyne, Stephen B. - Agriculture and Food Economics

Stebbins, Gary J. - Psychology

VISTA

1965 Graduates

Men

Abbott, Raymond H. - Government

Women

Sullivan, Mary E. - Psychology

FELLOWSHIPS AND ASSISTANTSHIPS

CLASS OF 1965

Name	Major	Grants	Institution	Amount
Blanksteen, Stephen	Management	Assistantship	University of Massachusetts	$1500
Bonneau, Charles H.	Electrical Engineering	National Science Foundation Traineeship	University of Pennsylvania	
Carvalho, G. L., Jr.	Economics	Scholarship	Cornell University	$1000
Chevone, Boris I.	Zoology	Assistantship	University of Massachusetts	$2700
Chlapowski, Francis J.	Premedical	Assistantship	Michigan State University	
Clebnik, Sherman M.	Geology	Assistantship	Indiana University	
Cochran, Lillian T.	Sociology	Fellowship	University of Massachusetts	$2500
Coleman, Stephen R.	Psychology	Fellowship	Indiana University	
Connors, David M.	Civil Engineering	Assistantship	Massachusetts Institute of Technology	
Cottrell, Francis R.	Chemical Engineering	Assistantship	Massachusetts Institute of Technology	
Cournoyer, Blanche M.	Botany	Assistantship	Iowa State University	$3000
Dolan, Charles W.	Civil Engineering	Assistantship	Cornell University	$2100
Dowdall, William R.	Psychology	Assistantship	Virginia Theological Seminary	
Dubiel, John M.	Accounting	Assistantship	University of Massachusetts	

Name	Major	Grants	Institution	Amount
Fernald, C. Denton	Psychology	Assistantship	Indiana State University	
Growitz, Douglas J.	Geology	Assistantship	West Virginia University	
Gunn, Sanford C.	Accounting	Assistantship	University of Massachusetts	
Gustin, Marcie A.	Sociology	Assistantship	University of Hawaii	$2448
Hallock, Robert B.	Physics	Woodrow Wilson Fellowship	Stanford University	
Hampe, Richard A.	Government	Full Tuition Scholarship	George Washington Law School	
Hays, Ann B.	French	Fellowship	University of Massachusetts	$2500
Hermsdorf, Carol	Chemistry	Fellowship	Pennsylvania State University	$2000
Hyde, Henry C., Jr.	Civil Engineering	Assistantship	University of Massachusetts	$3000
Kellogg, Charles W.	Zoology	Assistantship	University of Massachusetts	$2200
Knight, Sandra A.	English	Fellowship	University of Massachusetts	$2000
Kopcinski, Frances M.	Psychology	National Institute of Mental Health Fellowship	Purdue University	$1800
Kos, Joseph M.	Electrical Engineering	National Science Foundation Traineeship Fellowship	Rensselaer Polytechnic Institute	
Krasin, Frank L.	Chemical Engineering	Fellowship	Rensselaer Polytechnic Institute	
L'Heureux, Dawn P.	English	Assistantship	Louisiana State University	$2800
Lussier, Roger J.	Chemistry	Assistantship	Brown University	

Name	Major	Grants	Institution	Amount
Makos, John J.	Zoology	Assistantship	University of Massachusetts	$50/week
Manning, Kathleen M.	History	Scholarship and Massachusetts Federated Women's Club Scholarship	University of Maryland	$2000 $1500
Matta, James F.	Entomology	Assistantship	University of Florida	
Miller, Arthur C.	Civil Engineering	Research Assistantship	Colorada State University	
Needham, Kenneth E.	General Business Finance	Fellowship	University of California (Berkeley)	
Nowak, Edward N.	Chemistry	Assistantship	Pennsylvania State University	
Ortega, Milagros T.	Spanish	Fellowship	University of Massachusetts	$2500
O'Sullivan, James S.	Economics	Tuition Scholarship	Northeastern University	
Pajak, John R.	Chemistry	Teaching Assistantship	Purdue University	
Pearson, Carolyn	Mathematics	Assistantship	University of Massachusetts	$2000
Piekut, Alphonse	Mechanical Engineering	Teaching Fellowship	Pennsylvania State University	
Pollard, Michael D.	Mechanical Engineering	Assistantship	Worcester Polytechnic Institute	
Pratt, Sandra P.	Premedical	Government Grant for Teaching of the Deaf	New York University	$5000
Radice, Jeannette M.	Chemistry	Assistantship	University of Wisconsin	$2970
Radowicz, Helen J.	Zoology	Fellowship	University of California (Los Angeles)	$2650

Name	Major	Grants	Institution	Amount
Redding, Robert W.	Mathematics	Teaching Assistantship	University of Rhode Island	
Rosenberg, Martin J.	Premedical	Fellowship and Tuition Scholarship	University of Louisville	$2400
Rosenthal, Sheila	Microbiology	Assistantship	University of California	$50/week
Ryan, Maurice J.	Economics	Assistantship	Boston College	
Sackmary, Benjamin D.	Sociology	Assistantship	University of Massachusetts	
Shuman, Judith R.	Psychology	Assistantship	University of Texas	
Singer, Jack N.	Psychology	Assistantship	Bowling Green State University	
Sleeper, James T.	Zoology	Assistantship	University of Massachusetts	
Sokoloski, James S.	Chemical Engineering	Assistantship	Calgary University (Canada)	$1800
Spinner, Dennis F.	Mathematics	Teaching Assistantship and National Aeronautics and Space Association Fellowship	University of New Hampshire	
Stanlake, Leo J.	Psychology	Teaching Assistantship	University of Massachusetts	
Stewart, Mary C.	Mathematics	Fellowship	University of Alberta	
Swanson, Gary R.	Civil Engineering	Fellowship	University of Maine	
Terzieff, Janice E.	Russian	Scholarship	University of Wisconsin	
Thompson, Richard J.	Economics	Assistantship	University of Rhode Island	
Tracy, Susan F.	Preveterinary	Assistantship	Cornell University	$2200

Name	Major	Grants	Institution	Amount
Troccolo, Joseph A.	Mathematics	Assistantship	University of Wisconsin	$270/month
Twohig, Paul T.	Chemical Engineering	Fellowship	University of Cincinnati	
Weinberg, Theodore J.	Accounting	Bernard Baruch Scholarship	City College of New York	
Zaff, Paul J.	Psychology	Assistantship	Michigan State University	

LOCATION OF NON-TEACHING EMPLOYMENT BY STATES

State	Women	Men	State	Women	Men
Arkansas	1	0	New Hampshire	0	2
California	3	2	New Jersey	1	4
Connecticut	6	32	New Mexico	1	0
Florida	0	1	New York	9	37
Hawaii	0	2	Ohio	2	3
Illinois	0	5	Pennsylvania	2	9
Indiana	1	0	Rhode Island	2	0
Kentucky	1	0	South Carolina	3	1
Maine	0	1	Utah	1	0
Maryland	0	4	Virginia	3	2
Massachusetts	77	72	Washington	0	2
Michigan	0	1	Washington, D.C.	0	2
Missouri	1	0	Wisconsin	0	1
			Overseas (including Peace Corps and Vista)	3	10

LOCATION OF TEACHING EMPLOYMENT BY STATES

State	Women	Men	State	Women	Men
California	3	1	New Hampshire	2	0
Connecticut	25	1	New Jersey	2	0
Maryland	1	0	New York	6	0
Massachusetts	121	6	Pennsylvania	2	0
Michigan	3	0	Vermont	1	0

TOTAL LOCATION OF EMPLOYMENT BY STATES

State		State	
Arkansas	1	New Hampshire	4
California	9	New Jersey	7
Connecticut	64	New Mexico	1
Florida	1	New York	52
Hawaii	2	Ohio	5
Illinois	5	Pennsylvania	13
Indiana	1	Rhode Island	2
Kentucky	1	South Carolina	4
Maine	1	Utah	1
Maryland	5	Virginia	5
Massachusetts	276	Vermont	1
Michigan	4	Washington	2
Missouri	1	Washington, D.C.	2
		Wisconsin	1
		Overseas(including Peace Corps and Vista)	13

Type of Position	Women		Men	
	High	Low	High	Low
Account Representative			$6600	
Accountant				
Cost Accountant, Manager			$4320	
Field Administrative Accountant			$6000	
Junior Accountant			$6720	
Staff Accountant			$6360	
Trainee			~~$7200 $6360~~	~~$7200~~ $6360
Administrative Analyst			$5808	
Airline Stewardess	$4800			
Auditor				
Internal Auditor			$5040	
Junior Auditor			$6240	
Staff Auditor			$6600	
Bank Teller Trainee	$4000			
Business Trainee			$6480	
Chemist			$7992	
Control Chemist			$6468	
Development Associate			$7500	
Clerical Assistant	$3900			
Clerk-Receptionist	$2900			
Data Processing Trainee			$5520	
Dietetics				
Dietitian	$4800	$4160		
Intern	No salary			
Service Assistant in Food Chain	$5000			
Economist	$5800			
Engineer	$6000			
Chemical			$7680	$7440
Process Development			$7740	$7440
Research Trainee			$7440	
Technical Service			$7800	
Civil			$7284	$7080
City Planning			$6000	
Highway Trainee			$7800	$7080
Junior Civil Engineer			$7800	$6432
Electrical			$8520	$6240
Assistant			$7620	
Controls			$7440	
Design and Development			$8304	$7560
Junior Developer			$7680	

Type of Position	Women		Men	
	High	Low	High	Low
Engineer, Electrical con't.				
Field Engineer			$11,244	$7008
General Service			$8004	
IBM			$8076	$8040
Junior Electrical Engineer			$8040	$7104
Physical Plant			$6720	
Representative			$13,800	
Industrial			$7800	$7020
Junior			$6820	
Management Trainee			$8280	
Manufacturing			$7932	$7320
Nuclear Systems			$7596	
Production			$9300	$6960
Mechanical			$7776	$7440
Analytic			$7440	
Design			$7320	
Experimental			$7620	$7200
Maintenance			$7800	
Nuclear Trainee			$7656	
Salesman			$7020	
Trainee			$7020	
Industrial Relations Assistant			$7500	
Insurance				
Actuarial	$4500			
Administrative Assistant	$5200	$5000		
Agent			$6600	
Claims Adjustor Trainee			$5520	
Claims Adjustor and Investigator			$5700	
Claims Examiner			$5592	
Contract Writer	$4680			
District Agent			$6600	
Management Trainee			$6000	$5820
Researcher	$3600			
Risk Analyst	$4400	$4100		
Service Representative			$6000	
Underwriter	$4800			
Underwriter Trainee			$5592	$4800
Librarian				
Assistant	$4350			
Junior	$5719			
Marketing				
Public Relations	$3900			
Researcher	$4160			
Sales Trainee			$6300	

Type of Position	Women		Men	
	High	Low	High	Low
Mathematician			$7056	
Medical Technologist Trainee	$3900	$3000		
Minister's Assistant	$4000			
Nurse	$5900	$2664		
Personnel Technician			$6200	
Programming				
Electronic	$5600			
Linear	$7680			
Specialist	$4800			
Systems Analyst	$5000			
Systems Engineering Trainee	$7200			
Trainee	$6500	$5200		
Public Health Worker	$5658			
Publishing				
Editorial Assistant	$3900			
Editorial Secretary	$4680	$3900		
Manuscript Editor	$4800			
Recreation Aide	$4800			
Research				
Assistant Lab Director in business	$5000			
Histochemical Technician	$4700			
Lab Coordinator in university	$4700			
Lab Engineer			$7380	
Lab Technician	$4900		$4320	
Microbiologist	$6420			
Psychology Research Assistant	$4400			
Research Secretary	$4680			
Retailing				
Assistant Buyer	$4160			
Assistant Store Manager	$4680			
Executive Trainee	$5720	$3120	$6024	$4320
Management Trainee			$7200	$4800
Manager			$9600	
Merchandising Clerk	$3900			
Sales Representative			$6600	$5400
Salesman			$6900	
Salesman Trainee			$4944	

Type of Position	Women		Men	
	High	Low	High	Low
Sanitarian			$4944	
Secretary				
Engineer Society	$4800			
Jr.-Clerk Stenographer	$3320			
Payroll Clerk	$4344			
University	$4264			
Social Worker	$5600	$4740	$5136	
Sorority Field Adviser	$1608			
Student Union Programmer	$5900			
Travel Agent Assistant			$4800	
Technical Writer	$6420		$6780	
Telephone				
Administrative Assistant	$5160	$3900		
Service Representative	$4264			
Training Instructor in Electric Co.	$6500			
U. S. Government				
Air Transportation Specialist			$10,248	
Health, Education and Welfare Dept.			$5000	
Interior Department				
Civil Engineer			$5988	
Labor Department				
Field Representative	$5000			
Wage and Hour Investigator			$5000	
Navy Bureau of Yards and Docks			$5000	
U. S. Air Force				
Second Lieutenant			$8376	

TEACHING

Type of Position	Women		Men	
	High	Low	High	Low
Art	$5100	$5000		
Science				
General	$5000		$5200	
Specific	$5200	$5000		
Speech Therapist	$5100	$5000		
Elementary, all grades	$6150	$5200		
Secondary				
English	$5525	$4500	$5200	$5000
French	$5200	$5000		
German	$5000			
History	$5000			
Home Economics	$5200	$5000		
Latin	$4900 plus Room & Board			
Mathematics	$5600	$5000	$5500	$5250
Music	$5100			
Physical Education	$5600	$5000	$5400	
Social Studies	$5200	$5100		
Spanish	$5200			

Annual Report

Office of Administrator and Recorder

July 1, 1965 - June 30, 1966

1. Expenditures and Appropriations

Purpose	Expenditures 1964	Expenditures 1965	Allotment 1966
01 Salaries, Permanent	----	----	----
02 Salaries, Other	----	----	----
03 Services, Non-Empl.	5,382.82	11,547.00	13,000.00
10 Travel	1,568.96	2,825.00	3,675.00
11 Advert. & Print	1,852.84	1,800.00	5,000.00
12 Maint. & Repair.	156.33	130.00	730.00
13 Special Supplies	4,083.67	2,790.00	10,000.00
14 Office & Admin.	5,433.93	3,880.00	7,125.00
15 Equip.	445.00	1,200.00	370.00
16 Rentals	360.00	5,360.00	10,000.00
Totals	20,313.38	33,382.00	49,900.00

2. Personnel

1963		1964	1965
Registrar	Dean of Admis. & Records	1	1
Assoc. Registrar	Assoc. Dean of Admis.	2	3
Assistant Registrar	Asst. Dean of Admis.	1	
Principal Clerk	Registrar	1	1
Senior Clerk-Steno	Staff Assistant (Records)	1	1
Senior Clerk-Typist	Staff Assistant (Asst. to Registrar)	1	1
Junior Clerk-Steno	Principal Clerk	1	1
Junior Clerk-Typist	Senior Clerk-Steno	2	2
	Senior Clerk-Typist	1	1
	Junior Clerk-Steno	4	4
	Junior Clerk-Typist	5	7

3. Organization of Office of Admissions and Records

Dean of Admissions and Records - 1
Associate Dean of Admissions - 2
Registrar - 1
Staff Assistant (Records) - 1
Staff Assistant (Assistant to Registrar) - 1
Head Clerk - 1
Senior Clerk-Steno - 1
Senior Clerk-Typist - 3
Junior Clerk-Steno - 4
Junior Clerk-Typist - 7

4. Students or Clientele Served

See Appendix 1, Annual Report of Admissions and Records

5. Faculty Publications

None

6. Major Accomplishments

Applications for admission to the freshman class increased approximately 15,200. Transfer applicants numbered 2400.

Computerization in college admissions at the University of Massachusetts using methods of data processing and multiple variable prediction enabled a staff of four admission officers to efficiently process 16,700 freshman applications and admit a class of 3100 highly qualified applicants at Amherst and 1,000 at the Boston Campus.

Total contacts in the Admissions Office (applications, College Board scores, and interviews) numbered 50,000.

7. Special Projects

See Appendix I Annual Report of Admissions and Records (pages 1-7).

8. Personnel Needs

1. Junior Clerk-Stenographer (2), Senior Clerk-Typewriter (1), Senior Clerk (1). In order to handle the increased number of applications and the record keeping functions efficiently, it is essential that an orderly expansion of the clerical staff in the Admissions and Records Office be planned for the future. As the size of undergraduate student bodies increase, the amount of work relating to maintenance of permanent record cards increases. These positions are needed in the Office of Admissions and Records.

Appendix I

UNIVERSITY OF MASSACHUSETTS

Annual Report of Admissions and Records 1965

I A. Membership of The Board of Admissions and Records.

G. A. Cannon	College of Arts and Sciences
L. C. Mainzer	College of Arts and Sciences
S. M. Greenfield*	College of Arts and Sciences
F. P. Jeffrey	College of Agriculture
F. H. Mulling	School of Business Administration
Miss H. F. O'Leary	School of Education
J. S. Marcus	School of Engineering
Miss H. R. Vaznaian	School of Home Economics
Miss M. E. Gilmore	School of Nursing
S. W. Kauffman	School of Physical Education
Dr. R. W. Gage	Health Service
J. A. Southworth	Counseling and Guidance Office
W. C. Starkweather, Secretary	Office of Admissions and Records
W. D. Tunis, Chairman	Office of Admissions and Records

* Elected member of The Faculty Senate.

B. Admissions and Records Office Professional Staff

W. D. Tunis	Dean of Admissions and Records
R. J. Doolan	Associate Dean of Admissions
E. W. Beals	Associate Dean of Admissions
D. P. Lawrence	Associate Dean of Admissions
W. C. Starkweather	Registrar
Mrs. Helen M. Perry	Recorder
L. C. Turner	Assistant Registrar

II Summary of activities of The Board of Admissions and Records.

A. Student Petitions

Petitions	Granted	Denied
Re-admission	37	60
Senior credits in absentia	6	0
Waiver of a graduation requirement	1	1
Permission to graduate with cumulative average under cutting point of former class	5	3
Waiver of 10 semester rule	3	2
Request for graduation with honors with less than 60 credits in residence	1	1
Waiver of Entrance Requirement	2	6

B. General policies voted by The Board of Admissions and Records.

1. Students who had dropped with W or WP below the 12 credit minimum load without approval to carry on under load should be considered as full time students in retention consideration.

2. The inclusion of non-credit (entrance, language repeat) courses as 3 credit course equivalents for purposes of minimum load and retention average calculations.

3. The Admissions Office shall be allowed to waive published entrance subject requirements in a very limited number of exceptional cases where the student would otherwise be clearly admissible to The University.

4. Authorized The Registrar to interpret the terms of the core curriculum in transfer cases liberally, seeking consultation from the appropriate academic departments, and reporting sample cases periodically to The Board as he deems necessary.

5. A student with a cumulative average below 2.0 is not to be re-assigned to a lower class prior to his seventh semester, when, through credit deficiency, it becomes apparent that he cannot graduate with his entering class. Re-admitted students are assigned to a new class, as appropriate.

C. The Faculty Senate voted to refer for study to The Board of Admissions and Records the following:

1. Grading system of The University
(Report approved by Faculty Senate January 1966)

III An analysis of the applicants to The University of Massachusetts electing The Candidate Reply Date, Spring 1965*

The Candidate Reply Date is established as a "gentlemen's agreement" by some member institutions of The College Entrance Examination Board. The purpose of this date is to give candidates for admission ample time and opportunity to explore and hear from colleges and universities of their choice without pressure for a decision. The date is set for the first Monday in May and allows a two week period for those institutions that make their admissions decisions in mid April. The University of Massachusetts has subscribed to The Candidate Reply Date for a number of years. Each candidate who is accepted before the middle of April is given the opportunity to either accept the offer of admission or notify The University of his desire to wait until May. During the admissions year of 1964-65, each of these candidates was asked to complete a return post card indicating this choice of the reply date and the other institutions in which he was interested.

The purpose of this study was to determine: (1) The number of these candidates who enter The University, and (2) Those colleges and universities the candidates indicated as other choices.

A total of 994 returns were received from men with 907 (91.2%) indicating one or more choices of other institutions and 849 returns were received from women with 762 (89.8%) indicating one or more choices of other institutions. With an estimated median predicted grade point average of 1.9 for all freshman applicants for the admissions year 1964-65, the median of 2.21 for men and 2.49 for women indicates that the candidate reply date group was well above average of the total applicant pool. From the 994 men in the candidate reply date group, 303 entered The University.

For the women, 281 entered out of the group of 849. The men indicated as their first choice 118 other colleges and universities and the women listed 109 different institutions. It is interesting to note that for each group (men and women) approximately 70% were waiting to hear from 22 institutions and 50% of these were waiting for replies from 12 colleges or universities. A small number of other Massachusetts state supported schools are represented on the list. These represent, however, only 2.2% of the returns for the men and 6.1% for the women. In this group, only about one-third entered The University.

Summary

1. The Candidate Reply Date group represents an above average calibre of candidate with regard to secondary school records and Scholastic Aptitude test scores.

2. Approximately 2/3 of those electing the Candidate Reply Date do not enter The University.

3. The competition for these students is primarily with the prestige - private institution.

4. The Candidate Reply Date group has little or no effect on other state institutions.

The complete study.

"*An analysis of the applicants to The University of Massachusetts electing the Candidate Reply Date Spring 1965" by Robert J. Doolan is available from The Office of Admissions and Records.

IV Community College Transfers

It is the policy of The University to accept all qualified transfer applicants from Massachusetts Regional Community Colleges. Qualified applicants are defined as students who have completed the two year liberal arts transfer program with a high C average and have the full recommendation of the academic personnel at the community college.

In order to plan adequate places for community college transfers in the future, The Office of Admissions and Records surveyed the existing community colleges and requested estimates on numbers of qualified applicants who will be seeking admission to The University during the next six years. The data are presented in the following table:

Projected Community College Transfers
to The University of Massachusetts
1965-1970

Community College	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Berkshire (Pittsfield)	31	60	65	90	95	125
Cape Cod (Hyannis)	19	25	40	45	45	50
Greenfield	25	30	35	35	40	45
Holyoke	46	70	105	120	145	160

Community College	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Mass.Bay (Boston)	38	50	90	100	105	125
Mt.Wachusett (Gardner)	2	15	20	20	25	25
Northern Essex (Haverhill)	17	50	70	90	120	150
North Shore (Beverley)	-	15	20	20	25	25
Quinsigamond (Worcester)	13	30	40	50	60	70
Total	191	345	485	570	660	775

Approximately twice the number listed above apply for transfer, however, only about 50% receive a full recommendation for transfer to The University. Over 85% of those accepted actually enter The University - A very high rate of matriculation.

The projections given above will fluctuate for the next few years depending upon the rate of growth of the present community colleges and the establishment of new community colleges.

In general, the projections given above we believe are on the low side.

Detailed reports on the performance of community college transfer students are available in the Office of Admissions and Records.

V In June, 1964, The University of Massachusetts was authorized by the legislature of The Commonwealth to establish a Boston campus in order to provide opportunities in public higher education to larger numbers of students in The Greater Boston area.

The Office of Admissions and Records was given the responsibility of recruiting and admitting the first freshman class at The University of Massachusetts - Boston.

The following table gives an admissions analysis for 1964-65:

Admissions Analysis
University of Massachusetts - Boston

	Freshmen			Transfers			
	Instate	Out	Total	Instate	Out	Total	Returning
Applied							
Men	1427	20	1447	100	2	102	4
Women	852	10	862	32	2	34	-
Total	2279	30	2309	132	4	136	4
Accepted							
Men	1008	68	1016	38	-	38	2
Women	717	6	723	16	1	17	-
Total	1725	14	1739	54	1	55	2

	Freshmen			Transfers			
	Instate	Out	Total	Instate	Out	Total	Returning
Paid Matriculation							
Men	872	3	875	31	-	31	-
Women	531	4	535	14	1	15	-
Total	1403	7	1420	45	1	46	-
Paid Counseling							
Men	768	2	770	4	-	4	-
Women	434	4	438	2	1	3	-
Total	1202	6	1208	6	1	7	-

Enrolment Fall 1965

Men	776
Women	441
Total	1217

The profile for the Class of 1969 at The University of Massachusetts - Boston is given in the following tables:

DISTRIBUTIONS OF CEEB .. SAT SCORES AND HIGH SCHOOL RANK
FOR MALES AND FEMALES AT THE UNIVERSITY OF MASSACHUSETTS - BOSTON

Class of 1969

SAT - Verbal

	Men		Women		Total	
	N	%	N	%	N	%
700-up	10	1.5	7	1.7	17	1.6
650-699	31	4.7	19	4.6	50	4.7
600-649	62	9.4	29	7.1	91	8.5
550-599	125	19.0	82	20.0	207	19.4
500-549	118	18.0	91	22.2	209	19.6
450-499	147	22.4	87	21.3	234	22.0
400-449	107	16.3	62	15.2	169	15.9
350-399	47	7.2	26	6.4	73	6.8
300-349	8	1.2	6	1.5	14	1.3
250-299	2	0.3	0	0.0	2	0.2
	657		409		1066	

SAT - Mathematics

	Men		Women		Total	
	N	%	N	%	N	%
700-up	15	2.3	4	1.0	19	1.8
650-699	36	5.5	14	3.5	50	4.7
600-649	115	17.5	31	7.7	146	13.8
550-599	126	19.1	55	13.7	181	17.1
500-549	144	21.9	87	21.6	231	21.8
450-499	130	19.7	92	22.9	222	20.9
400-449	70	10.6	75	18.7	145	13.7
350-399	16	2.4	35	8.7	51	4.8

SAT - Mathematics (Continued)

	Men		Women		Total	
	N	%	N	%	N	%
300-349	7	1.1	8	2.0	15	1.4
250-299	0	0.0	1	0.2	1	0.1
	659		402		1061	

HIGH SCHOOL RANK

Class of 1969

University of Massachusetts - Boston

Top	Men		Women		Total	
	N	%	N	%	N	%
Top 1-5%	11	1.7	30	7.7	41	3.9
6-10	39	5.9	46	11.8	85	8.1
11-15	49	7.4	49	12.6	98	9.3
16-20	47	7.1	48	12.3	95	9.0
21-25	54	8.2	43	11.1	97	9.2
26-35	110	16.6	68	17.5	178	16.9
36-50	140	21.1	63	16.2	203	19.3
51-75	158	23.9	33	8.5	191	18.2
79-99	54	8.2	9	2.3	63	6.0
	662		389		1051	

MEDIANS

	SAT-Verbal	SAT-Mathematics	High School Rank
Males	506	536	37%*
Females	512	494	23%**
Total	509	520	31%***

*Median male exceeds 63% of males in Class of 1969
**Median female exceeds 77% of females in Class of 1969
***Median student exceeds 69% of students in Class of 1969

VI Other Activities

1. During the calender year 1965, the office mailed out a total of 159,518 letters.

2. In order to assist and cooperate with secondary schools in pre-college counseling, the staff of the Admissions Office visited every public secondary school in the Commonwealth. Visitations were also made to selected private and parochial secondary schools.

3. During the year, the Admissions Staff visited each of the Regional Community Colleges at least twice in order to acquaint students and staff with University policies on transfer.

4. Although, interviews are not required as part of the admissions procedure, applicants and their parents come to us in increasing numbers for information about the University and help in regard to personal problems. In order to handle the increasing numbers, the Admissions Office for the first time used group interviews. Based

on comments from parents and applicants, the group interviews system was well received.

5. Graduation, Honors and Registration lists are prepared. Deficiencies are checked.

6. Withdrawals are processed and refund of student fees authorized.

7. Pre-registrations and registrations are conducted for each semester and the several summer sessions.

8. Grades are received and checked before going to the EDP Office. Grade reports are distributed and class standing reported.

9. More and more the Admissions and Records Office is called upon to furnish detailed statistical information for academic and governmental agencies emphasizing the need for complete and accurate records. This statistical information is the permanent record of the expanding University and constitutes the basis for planning for the future.

1. ADMISSIONS

A. Admissions Data Class 1969 and Trends

1. Total Freshman Completed Applications

		Men	Women	Total
Sept.	1956	2,748	1,264	4,012
Sept.	1957	3,021	1,717	4,738
Sept.	1958	3,547	1,861	5,408
Sept.	1959	3,286	1,876	5,162
Sept.	1960	3,668	2,271	5,939
Sept.	1961	4,029	2,492	6,521
Sept.	1962	4,271	2,659	6,930
Sept.	1963	4,408	3,139	7,547
Sept.	1964	6,681	5,188	11,867
Sept.	1965	6,306	5,493	11,799

2. Freshman Students Accepted and Enrolled

		Men	Women	Total
Sept.	1956	723	425	1,148
Sept.	1957	730	536	1,266
Sept.	1958	828	538	1,366
Sept.	1959	1,135	703	1,838
Sept.	1960	1,009	716	1,725
Sept.	1961	1,229	689	1,918
Sept.	1962	1,155	767	1,922
Sept.	1963	1,287	999	2,286
Sept.	1964	1,318	1,274	2,592
Sept.	1965	1,407	1,215	2,622

*Includes transfers and former students assigned to that class.

3. New Freshmen (not including transfer, former students or those demoted).

Class	Selected		Paid		Paid and Withdrawn		Paid less those withdrawn	
	M	W	M	W	M	W	M	W
1962	1272	847	926	660	190	124	736	536
1963	1775	1236	1318	895	263	194	1055	701
1964	1728	1202	1232	895	280	189	952	706
1965	2178	1171	1444	880	298	198	1146	682
1966	2127	1318	1400	1007	304	249	1096	758
1967	2421	1757	1519	1287	318	281	1201	997
1968	2373	2132	1516	1670	395	340	1121	1330
1969	2762	2214	1822	1545	486	346	1336	1199

4. Per cent of loss based upon the number selected

Class	Men	Women
1961	40	35
1962	42	37
1963	40.6	43.3
1964	44.9	41.3
1965	47.4	41.8
1966	48.9	42.4
1967	50.4	43.2
1968	52.8	37.7
1969	51.6	45.8

5. Summary of New Freshmen Applications.

a. Total Completed Applications 11,799

b. Total Selected from Applications 4,976 (42.1 per cent)

c. Total Matriculated of those Selected 2,622 (52.6 per cent)

6. Profile Class of 1969

a. College Board Scholastic Aptitude Test Scores.

1. Verbal

	Total		Males		Females	
	N	%	N	%	N	%
700 - up	97	3.9	34	2.6	63	5.2
650 - 699	204	8.1	93	7.1	111	9.2
600 - 649	523	20.8	235	17.9	288	23.9
550 - 599	683	27.1	343	26.1	340	28.3
500 - 549	507	20.2	263	20.0	244	20.3
450 - 499	360	14.3	237	18.1	123	10.2
400 - 449	116	4.6	86	6.5	30	2.5
350 - 399	20	0.8	16	1.2	4	0.3
300 - 349	4	0.2	4	0.3	0	0.0
250 - 299	2	0.1	2	0.2	0	0.0
TOTAL	2516		1313		1203	

2. Numerical

	Total		Males		Females	
	N	%	N	%	N	%
700 - up	168	6.7	118	9.0	50	4.2
650 - 699	411	16.3	249	19.0	162	13.5
600 - 649	608	24.2	322	24.5	286	23.8
550 - 599	600	23.8	329	25.1	271	22.5
500 - 549	467	18.6	197	15.0	270	22.4
450 - 499	199	7.9	76	5.8	123	10.2
400 - 449	52	2.1	18	1.4	34	2.8
350 - 399	9	0.4	3	0.2	6	0.5
300 - 349	2	0.1	1	0.1	1	0.1
250 - 299	0	0.0	0	0.0	0	0.0
TOTAL	2516		1313		1203	

3. Comparison Median Scores Classes of 1966, 1967, 1968 and 1969.

Verbal				Numerical			
1966	1967	1968	1969	1966	1967	1968	1969
534	542	558	567	569	571	582	593

b. High School Rank (Class of 1969)

	Total		Males		Females	
	N	%	N	%	N	%
Top 1 - 5%	490	19.4	130	9.8	360	30.0
6 - 10	481	19.0	193	14.5	288	24.0
11 - 15	388	15.3	178	13.4	210	17.5
16 - 20	329	13.0	187	14.0	142	11.8
21 - 25	247	9.8	154	11.6	93	7.8
26 - 35	281	11.1	219	16.4	62	5.2
36 - 50	194	7.7	167	12.5	27	2.3
51 - 75	92	3.6	78	5.9	14	1.2
76 - 99	30	1.2	27	2.0	3	0.3
TOTAL	2532		1333		1199	

c. Medians - Class of 1969(Specials Summer - January)

	Total	Males	Females
CEEB - Verbal	536	515	548
CEEB - Mathematics	539	554	527

B. Admissions Data Transfers September 1965 and Trends

1. Completed Applications and Trends

	Completed Applications		Accepted and Enrolled	
	Men	Women	Men	Women
Sept. 1959	518	152	99	17
Sept. 1960	499	144	77	22
Sept. 1961	677	201	172	23
Sept. 1962	784	270	173	33
Sept. 1963	854	668	195	79
Sept. 1964	1006	452	233	114
Sept. 1965	1332	704	196	87

2. Transfers Accepted

	1966	1967	1968	1969	Total
Men	0	100	79	17	196
Women	1	56	25	5	87
Total	1	156	104	22	283

C. Admissions Data Former Students September 1965 and Trends

	Men	Women
Former students who re-entered September 1958	78	8
Former students who re-entered September 1959	68	16
Former students who re-entered September 1960	83	14
Former students who re-entered September 1961	68	25
Former students who re-entered September 1962	106	32
Former students who re-entered September 1963	127	21
Former students who re-entered September 1964	205	45
Former students who re-entered September 1965	147	55

1. Admissions Data Spring Semester 1964-1965

	1965	1966	1967	1968	1969	Total
Men	6	38	74	185	27	330
Women	7	13	23	138	6	187
Total	13	51	97	323	33	517

D. Admissions Data Spring Semester 1964-65

Swing Shift Freshman	174	
New Freshman	20	
Transfers		
Class '66	5	
Class '67	24	
Class '68	19	
Class '69	5	
Former Students Returning		
Class '65	12	
Class '66	47	
Class '67	73	
Class '68	130	
Class '69	8	
Total New Students Spring Semester		517

B. UNDERGRADUATE REGISTRATION AND TRENDS

1. Undergraduate Registration September 1965

Class	1966		1967		1968		1969		Total		Total
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Agriculture	102	6	121	9	125	8	105	11	453	34	487
Arts and Sciences	519	347	691	496	686	768	787	766	2683	2377	5060
Business Administration	153	12	252	22	201	13	165	13	771	60	831
Education	2	129	6	185	7	208	1	157	16	679	695
Engineering	149	1	233	1	232	3	271	4	885	9	894
Home Economics	-	30	-	52	-	89	-	97	-	268	268
Nursing	-	30	-	41	-	64	-	68	-	203	203

Class	1966 Men	1966 Women	1967 Men	1967 Women	1968 Men	1968 Women	1969 Men	1969 Women	Total Men	Total Women	Total
Physical Education	39	23	54	30	40	43	67	71	200	167	367
Public Health	13	16	7	21	5	22	1	24	26	83	109
No Major	1	-	2	2	2	-	10	4	15	6	21
Total	978	594	1366	859	1298	1218	1407	1215	5049	3886	3886
Total by Classes	1572		2225		2516		2622		8935		
Non-Classified									17	60	77
Specials									28	63	91
Total											9103

2. Undergraduate Residence September 1965

Massachusetts	8327
Other States	589
Foreign	19
Total	8935

3. Enrollment Trends - Total Undergraduates

Year	Men	Women	Total
1951	1934	1021	2955
1952	2032	1164	3196
1953	2267	1220	3487
1954	2479	1224	3703
1955	2459	1169	3628
1956	2581	1212	3793
1957	2650	1341	3991
1958	2772	1495	4267
1959	3090	1765	4855
1960	3257	2000	5257
1961	3549	2135	5684
1962	3759	2381	6140
1963	4125	2757	6882
1964	4617	3360	7977
1965	5049	3886	8935

4. Enrollment Trends - Freshman Men and Women

Class	Men	Women	Total
1955	639	406	1045
1956	669	407	1076
1957	754	416	1170
1958	810	372	1182
1959	698	390	1088
1960	723	425	1148
1961	730	536	1266
1962	828	538	1366
1963	1135	703	1838
1964	1009	716	1725
1965	1229	689	1918
1966	1155	767	1922
1967	1287	999	2286
1968	1318	1274	2592
1969	1407	1215	2622

5. Enrollment Trends - Freshman Enrollment by Schools

Class	Arts & Science	Engin.	Ed.	Bus. Adm.	Agric.	Home Econ.	Phys. Ed.	Nursing	Public Health
1956	522	213		115	99	102	25		
1957	577	277		146	83	64	23		
1958	543	314		148	98	55	24		
1959	519	295		93	86	52	20	23	
1960	588	309		107	61	40	18	25	
1961	607	309	90	116	55	45	23	21	
1962	694	300	80	125	69	35	38	25	
1963	987	321	127	173	92	37	63	39	
1964	972	317	117	115	80	25	62	37	
1965	1164	298	102	135	86	26	71	36	
1966	1168	268	116	133	93	37	65	42	
1967	1468	277	127	140	92	65	51	51	
1968	1656	303	167	132	86	72	75	69	32
1969	1553	275	158	178	116	97	138	68	25

6. Undergraduate Registration - Spring Semester 1964-65

Class	Men	Women	Total
1965	790	532	1322
1966	1079	617	1696
1967	1182	858	2040
1968	1365	1336	2701
1969	27	6	33
Total	4443	3349	7792
Specials	39	117	156

7. Summer School 1965

A. Session Enrollment

Session Number	Individual Students	
	Short Sessions	Main Sessions
1	90	
2		1696
3	16	
4	47	
6	2	
7	1	
8		1463
9	29	
10	32	
	217	3159

B. Student Attendance

University of Massachusetts Students		
1965	145	
1966	432	
1967	407	
1968	263	
1969	362	
N.C.	12	
Sp.	14	
Students from other colleges	612	
Total		2247

8. Distribution of Undergraduate Enrollment by Majors - September 1965

College of Arts & Sciences

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Astron	2		1		4		5	4	12	4	16
Micbio	3	5	4	1	7	4	13	5	27	15	42
Botany	2	2	6	5	6	2	7	3	21	12	33
Chem	27	3	19	9	42	7	66	39	154	58	212
Econ	35	1	40	5	24	4	19		118	10	128
Engl	60	88	80	161	70	168	61	139	271	556	827
Journ	2	2	4	9	16	20	16	25	38	56	94
Geol	8		8		12	1	11	1	39	2	41
Art	9	22	9	18	5	30	2	18	25	88	113
German	4	7	9	11	7	17	3	10	23	45	68
Hist	75	40	110	52	87	64	97	54	369	210	579
Govt	109	33	129	38	99	44	94	38	431	153	584
Math	33	30	59	35	70	80	128	114	290	259	549
Music	2		3	2	4	5	10	8	19	15	34
Phil	6	3	10	2	8	4	9	1	33	10	43
Physic	15		13	1	11	4	21	7	60	12	72
Psych	34	24	52	32	46	67	51	78	183	201	384
Clsics							1	1	1	1	2
French	6	12	4	25	5	52	13	76	28	165	193
Span	2	13	3	9	7	18	5	12	17	52	69
Russ	5	1	4	2	1	8	3	7	13	18	31
Latin				1		2	2	5	2	8	10
Sociol	15	23	21	29	7	67	12	42	55	161	216
Anth	1	2	2	5	2	5	2	4	7	16	23
Speech	11	17	10	18	9	25	2	13	32	73	105
Zool	21	15	33	15	34	41	129	61	217	132	349
PreMed	20	3	33	10	62	21	4	1	119	35	154
PreDnt	11		21		33		1		66		66
PreVet	1	1	4	1	8	8			13	10	23
TOTAL	519	347	691	496	686	768	787	766	2683	2377	5060

College of Agriculture

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
C Agr					1		7		8		8
A&F Ec	4		4		4		2		14		14
FD Dist					1				1		1
Ag Eng					2		1		3		3
PL Soil	4	1	9	2	5		3	2	21	5	26
Dairy	1								1		1
An Sci	14	3	6	1	9	1	9	5	38	10	47
Ent	6		1		3		2	1	12	1	13
FD Sci	11	1	10	2	5	2	1	1	27	6	33
Htl Mgt	9		22	1	17	1	8		56	2	58
Forest	11		20	1	25	2	30		86	3	89
Wildlf	19		20		23		28	1	90	1	91
Fish	2				3		1		6		6
LD Arc	21	1	27	2	21	1	13	1	82	5	87
Ld Arc					1				1		1
Pk Adm			1		2				3		3
PreVet			1		3	1			4	1	5
TOTAL	102	6	121	9	125	8	105	11	453	34	486

School of Business Administration

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
S BA	2		26		175	12	141	8	344	20	364
Gen Bus	6	1	34	2	3				43	3	46
Acctg	48	6	74	10	11		13	3	146	19	165
GB Fin	21	1	10		1				32	1	33
Mgt	47	2	73	4	6	1	8		134	7	141
Mktg	29	2	35	6	5		3	2	72	10	82
TOTAL	153	12	252	22	201	13	165	13	771	60	831

School of Education

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Educ	2	129	6	185	7	208	1	157	16	679	695

School of Engineering

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Engin	2		12		36		232	3	282	3	285
CH E	16	1	25		34	1	9	1	84	3	87
C E	42		57		40		8		147		147
E E	42		59	1	54	2	9		164	3	167
I E	10		20		17		1		48		48
M E	37		60		51		12		160		160
TOTAL	149	1	233	1	232	3	271	4	885	9	894

School of Home Economics

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
H Ec		30		52		89		97		268	268

School of Nursing

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Nurse		30		41		64		68		203	203

School of Physical Education

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Men PE	36		48		40		66		190		190
Wo PE		17		21		40		67		145	145
Rec	3	6	6	9		3	1	4	10	22	32
TOTAL	39	23	54	30	40	43	67	71	200	167	367

Department of Public Health

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Pub Hl	12	5	6	3	2			1	20	9	29
Med Tec	1	11	1	18	3	22	1	23	6	74	80
TOTAL	13	16	7	21	5	22	1	24	26	83	109

No Major

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
No Major	1		2	2	2		10	4	15	6	21

9. Registration on Interchange of Students Programs, Amherst, Mount Holyoke, Smith, and University of Massachusetts cooperating.

a) Spring Semester 1964-65

From	Course	Number of Students
Amherst to University	Anthropology 60	1
	Art 14	1
	Art 33	1
	Art 58	1
	Art 79	1
	C E 35	1
	Chinese 8	1
	Economics 82	2
	English 54	1
	English 92	1
	Government 96	1
	Physics 213	1
	Portuguese 8	1
	Spanish 28	1
	Spanish 82	1
Mt. Holyoke to University	Anthropology 67	1
	Anthropology 74	1
	Anthropology 79	1
	Archaeology 60	1
	Art 65	1
	Botany 217	1
	Chinese 8	2
	Government 57	1
	History of Science 298	2
	Mathematics 57	1
	Psychology 92	4
	Psychology 208	1
	Sociology 156	1
Smith to University	Art 79	1
	Chinese 8	1
	Chinese 12	2
	Geology 74	1
	Mathematics 69	1
	Philosophy 64	1
	Philosophy 72	1
	Philosophy 258	2
	Sociology 70	1
	Statistics 92	2
	Zoology 80	1

From	Course	Number of Students
University to Amherst	Art 49S	1
	Dramatic Arts 23S	1
	Economics 66	1
	French 27S	1
	Greek 1S	1
	History 22	1
	Latin 80	1
	Religion 24	2
	Religion 44	2
University to Mt. Holyoke	English 245S	1
	Geography 213S	2
	Geography 315S	2
	History 298S	1
	Latin 316S	1
	Latin Ind.Res.	1
	Russian 302	1
University to Smith	Art 316b	1
	English 415b	1
	History 314b	1
	Latin 14b	1
	Philosophy 312b	1
	Religion 31b	1
	Sociology 39b	2
Amherst to University	Accounting 125	4
	Anthropology 368	2
	Anthropology 376	2
	Art 230	1
	English 116	1
	English 201	1
	English 264	2
	English 345	1
	German 101	1
	History 300	1
	History 302	1
	Math 341	1
	Math 725	2
	Math 881	1
	Physics 701	1
	Physics 711	2
	Psychology 215	1
	Psychology 385	1
	Russian 251	2
	Russian 253	1
	Russian 271	1
	Sociology 101	1
	Social Science 260	1
	Zoology 221	1

From	Course	Number of Students
Mt. Holyoke to University	Anthropology 368	1
	Anthropology 373	1
	Ch. E. 125	1
	Computer Science 551	1
	Economics 251	1
	Government 391	1
	History 303	1
	Japanese 101	1
	Mathematics 257	2
	Philosophy 340	1
Smith to University	Art 100	1
	Chinese 107	1
	German 259	1
	Japanese 101	1
	Mathematics 771	1
	Philosophy 313	2
University to Amherst	Greek 3	1
	History 67	1
	Latin 5	3
University to Mt. Holyoke	Economics 315f	1
University to Smith	Art 36A	1
	Art 49A	1
	French 410A	1
	Italian 37A	1
	Latin 14A	1
	Latin 23A	1
	Latin 26	1
	Latin 36A	1
	Philosophy 35A	1
	Philosophy 311A	1
	Psychology 30A	1
	Psychology 42A	1
	Religion 29	1
	Religion 35A	1

C. RECORDS

1. Withdrawals

a. Academic Dismissals - college year 1964-65
Scholastic Dismissals January 1965. Includes those dismissed but reinstated.

Class	Men	Women	Total
1965	9	3	12
1966	37	10	47
1967	75	19	94
1968	79	22	101
	200	54	254

Scholastic Dismissals June 1965. Includes those dismissed but reinstated.

Class	Men	Women	Total
1965	5	2	7
1966	14	4	18
1967	74	15	89
1968	156	81	237
1969	2	0	2
	251	102	353

b. Trend in academic dismissals for freshman year.

Class	Number of dismissals in freshman year	Total enrollment Sept. of freshman year	Rate of dismissals in per cent
1957	103	1170	8.8
1958	172	1182	14.5
1959	129	1088	11.8
1960	144	1148	12.5
1961	167	1266	13.2
1962	166	1366	12.15
1963	270	1838	14.7
1964	315	1725	18.3
1965	406	1918	21.1
1966	312	1922	16.2
1967	297	2286	12.9
1968	338	2592	13.0

c. Scholastic Probation 1964-65

Class	Male	Female	Total
1965	8	2	10
1966	7	4	11
1967	29	15	44
1968	158	77	235
Total	202	98	300

In some cases other failures were reinstated without probation by the Board of Admissions and Records.

d. Summary of Withdrawals - College year 1964-65

1. Withdrawals during Fall semester.

Reasons	1965		1966		1967		1968		Total
	M	F	M	F	M	F	M	F	
Difficulty with studies	-	1	1	2	2	2	4	4	16
Financial	0	1	4	-	2	-	3	1	11
Transfer	-	-	-	1	-	2	-	4	7
Discipline	-	-	-	2	1	-	-	-	3
Personal	7	7	17	5	26	8	27	18	115
Military Enlistment	1	-	-	-	1	-	2	-	4
Health	4	2	7	1	14	4	11	5	48
Reasons Unknown	1	-	-	-	-	-	-	-	1
Marriage	-	-	-	1	-	4	-	1	6
Totals	13	11	29	12	46	20	47	33	211

2. Withdrawals between the fall and spring semesters

Reasons	1965		1966		1967		1968		Total
	M	F	M	F	M	F	M	F	
Scholastic dismissal	9	3	37	10	75	19	79	22	254
Difficulty with studies	0	1	0	2	3	7	0	0	13
Financial	0	0	2	2	10	0	0	0	14
Transfer	0	1	0	2	3	7	0	0	13
Discipline	0	0	1	0	0	2	0	0	3
Personal	0	5	5	3	5	6	1	0	25
Military	0	0	1	0	0	0	0	0	1
Health	0	0	1	0	0	1	0	0	2
Reason unknown	10	6	14	4	24	6	3	2	69
Marriage	0	1	0	2	0	1	0	0	4
Totals	19	17	61	25	120	49	83	24	398

3. Withdrawals during spring semester

Reasons	1965		1966		1967		1968		1969		Specials		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
Difficulty with studies	0	0	0	1	1	1	1	3	0	0	0	0	7
Financial	1	0	0	0		0	1	0	0	0	0	0	2
Transfer	0	0	0	0		0	0	3	0	0	0	0	3
Discipline	3	2	2	0		0	6	0	0	0	0	0	13
Personal	7	2	14	2	14	5	25	8	0	0	2	5	84
Military Enlistment	0	0	1	0	1	0	2	0	0	0	0	0	4
Health	1	1	1	4	4	2	6	8	0	0	0	2	29
Marriage	0	1	0	0	0	0	0	3	0	0	0	0	4
Reason unknown	0	0	0	0	0	1	0	0	0	0	0	0	1
Totals	12	6	18	7	20	9	41	25	0	0	2	7	147

4. Withdrawals between end of spring semester and September 1965

Reasons	1965		1966		1967		1968		1969		Total
	M	F	M	F	M	F	M	F	M	F	
Scholastic deficiency	5	2	14	4	74	15	156	81	2	0	353
Difficulty with studies	0	0	1	1	6	1	2	2	0	0	13
Financial	0	0	2	2	1	2	2	2	0	0	11
Discipline	0	0	0	0	0	1	0	2	0	0	3
Transfer	0	0	2	4	7	9	9	10	0	0	41
Personal	0	0	27	13	42	42	42	30	0	0	196
Military Enlistment	0	0	0	0	3	0	3	0	0	0	6
Health	0	0	0	0	1	2	1	0	0	0	4
Reason unknown	0	0	7	18	21	26	12	26	0	0	110
Marriage	0	0	0	1	1	2	0	0	0	0	4
Totals	5	2	53	43	156	100	227	153	2	0	741

2. Class and University yearly grade point averages 1964-65

Class of 1965	Number of Students	Average of Averages
Men	1645	2.519
Women	1095	2.741
Class	2740	2.608
Class of 1966		
Men	2115	2.326
Women	1254	2.445
Class	3369	2.370
Class of 1967		
Men	2558	2.091
Women	1761	2.327
Class	4319	2.187
Class of 1968		
Men	2646	1.976
Women	2587	2.203
Class	5233	2.088
Class of 1969		
Men	28	1.817
Women	6	2.300
Class	34	1.902

Total	Number of Students	Average of Averages
Men	8992	2.190
Women	6703	2.369
University	15695	2.266

3. Bachelors Degrees awarded 1965. Students who received degrees in calendar year 1965 graduated as of the Class of 1965.

School	February	June	September	Total
Arts and Science				
B.A.	42	474	103	619
B.S.	11	123	18	152
Agriculture				
B.S.	8	57	10	75
B.V.A.		2		2
Business Administration				
B.B.A.	15	84	16	115
Engineering				
B.S. Ch. E.	1	16	1	18
B.S. C.E.	5	22	4	31
B.S. E.E.	4	38	2	44
B.S. M.E.	5	31	2	38
B.S. I.E.	3	10	2	15
Education				
B.A.	4	117	5	126
Home Economics				
B.A.	0	27	3	30
Nursing				
B.S.	0	28		28
Physical Education				
B.S.	7	44	6	57
Dept. Public Health	1	15	4	20
Grand Total	110	1088	176	1374

4. Transcripts of Records Issued July 1, 1964 to June 30, 1965

a. Undergraduates

Free Transcripts	5575
Paid Transcripts	11888
Defective matrix	35
Defective copy	49
Transcripts for other offices	1978
Total	19525

b. Graduate School

Free Transcripts	1618
Paid Transcripts	1343
Defective matrix	69
Defective copy	74
Transcripts for other offices	286
Total	3296

c. Total transcripts done by Registrar's Office 22,821

COUNSELING AND GUIDANCE OFFICE

UNIVERSITY OF MASSACHUSETTS

Amherst, Massachusetts

A N N U A L R E P O R T

July 1965 -- May 1966

J. Alfred Southworth
Director

May, 1966

INTRODUCTION

This has been a year devoted in large measure to structuring services and functions in the light of recent developments in counseling practice and data-processing, with the major goal being that of extending more and better services to a rapidly expanding University community.

Important information about the dimensions of the Counseling and Guidance service appear below:

I. APPROPRIATIONS

Account No.	1963-64	1964-65	1965-66	
03	$20,600	$24,900	$11,390	F26
			31,200	F28
10	300	350	355	
11	---	---	500	
12	30	62	200	
13	2,500	2,800	6,100	
14	900	1,400	2,535	
15	770	1,000	440	
16	1,490	4,320	4,300	
	$26,590	$34,832	$57,020	

II. PERSONNEL

Rank	Number of Personnel in Each Position		
	SEPT. '63	SEPT. '64	SEPT. '65
Director of Counseling and Guidance Services	1	1	1
Assoc. Director of Counseling	1	1	1
Staff Assistant	1	2	2
Psychological Counselors	0	0	3
Consultants	0	1/5	1/5 (2)
Research Coordinator	0	0	1-1/4 (1)
Senior Clerk & Typist	0	1	1
Junior Clerk & Steno	1	1	1

Under the overall direction of Dr. J. Alfred Southworth the personnel of the Counseling Center underwent considerable expansion during 1965-1966. Mrs. Patricia Delisle joined our staff as senior clerk-stenographer in September, 1965, sharing the handling of office affairs with Mrs. Gretchen Asmussen.

In February, 1966, Mrs. Lorraine Reid joined the staff of the testing room, allowing Mrs. Marjorie Rodgers to continue her studies toward her bachelor's degree on a part-time basis.

Mr. Donald Rutherford joined our staff in April, 1966. As Junior Programmer, he aids in processing data collected in conjunction with student research. It is expected that this research will be able to be extended as a result of his assistance.

Under the direction of Dr. Mary Suydam, research on student culture has progressed rapidly this year. Dr. Suydam has also been concerned with teaching and supervising the research of graduate and undergraduate students.

Also in the research area, Mr. Donald Reutlinger, consultant, has given us the benefit of his experience and observations of student culture.

Mr. Simon V. Keochakian continues to extend our services on test and data processing, test construction, and special problems arising out of the use of our services by academic departments.

Under the direction of Mrs. Evelyn H. Russell, foreign student affairs have continued to go smoothly this year.

Three new psychological counselors were added to the staff this year. Dr. Sarah A. Alleman has devoted the majority of her time to individual counseling with students, with some supervision of graduate students and work on student culture research projects.

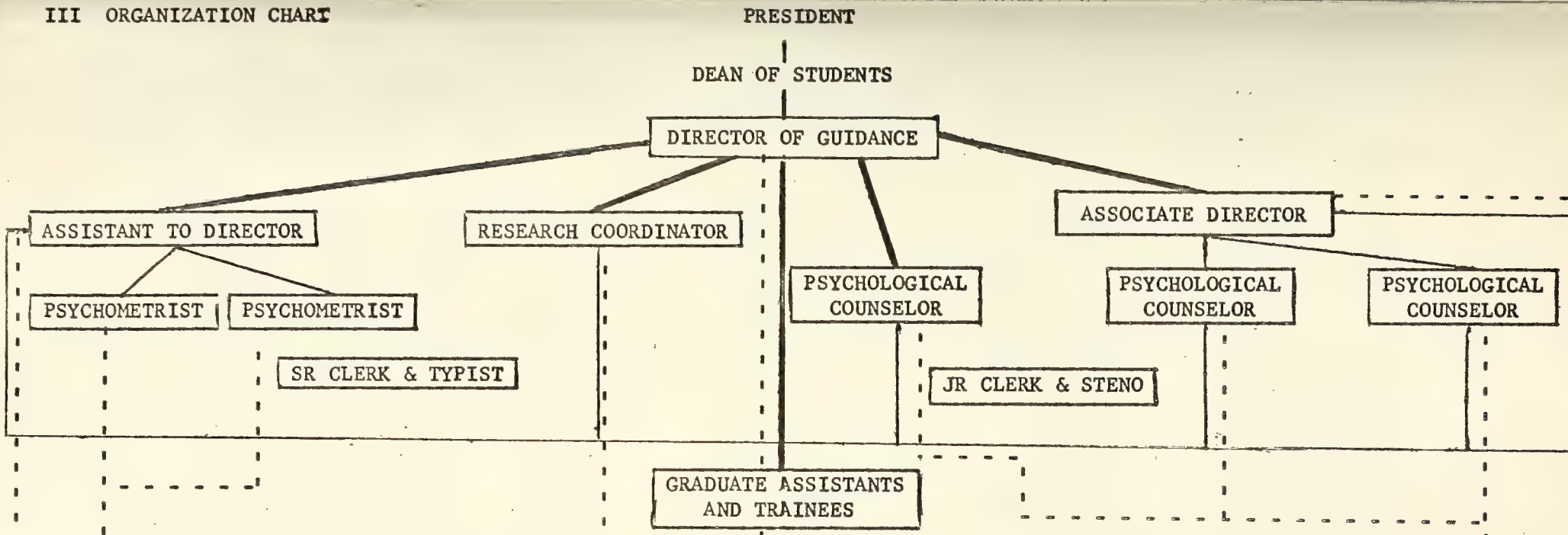
Mr. John Douds and Dr. David Asay have divided their time between counseling with students, teaching, and supervision of graduate students in training. They have also served as consultants to non-Counseling Center personnel and have been active in training heads of residence.

Dr. Bernard Berenson served this year as director of Student Counseling activities, performing the various functions of administration, counseling, and supervision of graduate student counseling and research.

Dr. Robert Carkhuff has served as a consultant at clinical case conferences. Dr. Richard Johnson has consulted on research and carried a small student case load. In addition to the regular staff, 14 graduate students have served the Counseling Center in counseling and/or research.

With the expansion of the Counseling Center staff, we have been able this year to extend consultation, supervision, and training services to many more non-Counseling Center persons who serve the University in Student Personnel capacities.

III ORGANIZATION CHART



R E S P O N S I B I L I T I E S :

In charge of all student and personnel testing. Assists in supervising Summer Counseling testing and other data preparation for Freshmen.

Supervise and Coordinate research on Student Cultures.

In charge of data collection and analysis, including Summer Counseling testing program and a wide range of psychological testing activities, conducting quantifying institutional studies, consulting on test construction and classroom data-analysis problems.

R E S P O N S I B I L I T I E S :

Provide psychological counseling, training and consulting services.

Assumes Directorship in absence of Director and assists with a number of administrative matters. In charge of major portion of student counseling and graduate student training. Consults on research. Responsible for counseling of two psychological counselors.

Over-all responsibility and supervision, including arranging, providing, and coordinating psychological counseling and testing services for the entire student body, plus providing related data-processing, training and consulting services to the University community.

Consultants: Robert R. Carkhuff, Richard W. Johnson, Donald P. Reutlinger

Director: J. Alfred Southworth

IV. STUDENTS AND OTHER CLIENTELE SERVED

THE SUMMER COUNSELING PROGRAM - 1965

The Freshmen, Returning and Transfer students who were advised during the Summer Counseling Program and the Program for Transfer and Returning Students numbered 3,085; and U/Mass Boston, 1,240.

COUNSELING -- Academic Year

This year the counseling services of the department were greatly enhanced in breadth and particularly in depth by the addition of three professional counselors and the active participation of several well-trained Counseling Psychology graduate students. At no time did the Counseling Center impose a waiting list nor was a student required to wait longer than forty-eight hours for an appointment.

Five hundred and forty-three (543) students were counseled by the professional staff and Counseling Psychology graduate students during the academic year 1965-66. Two thousand seventeen (2,017) contact hours were made with these 543 students. Of this total, the Counseling Psychology graduate students contributed three hundred thirty-six (336) contact hours. Ten group sessions were held by several members of the staff with a total of approximately twenty students participating in group counseling sessions comprised of three to six students.

TESTING -- Candidates for University Employment and University Students

At the time of this writing, five hundred forty-five (545) men and five hundred eighty-nine (589) women who were candidates for non-professional positions at the University were tested by the Counseling Center.

Tests administered to University students in conjunction with counseling sessions numbered one hundred seventy-eight (178) and were given to one hundred and one (101) students.

TESTING SERVICES -- University and Non-University Agencies

Two hundred ten (210) University classes were provided with test scoring services for a total of 50,000 graded examinations. Twelve outside agencies, which included a number of Regional Schools in Western Massachusetts were provided test scoring and data processing services.

NATIONAL, STATE, MUNICIPAL AND PRIVATE TESTING PROGRAMS

The Office continues to participate in the administration of a number of National, State, Municipal and private testing programs:

NATIONAL:

National Teachers Examination
Professional Qualification Test
Federal Career Development Program
Graduate Record Examination
Graduate Foreign Language Examination
Graduate Business Admissions Test
American College Testing
Miller's Analogy Test

STATE:

State of Connectitut Civil Service Examination
State of New York Civil Service Examination
State of Pennsylvania Civil Service Examination
State of Kentucky Civil Service Examiaation

MUNICIPAL:

City of Albany Civil Service Examination
City of Hartford Civil Service Examination

PRIVATE:

American Telephone and Telegraph Testing Program
W. T. Grant Company Testing Program

V. STAFF PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITY

PUBLICATIONS

Student Culture in the New England State Universities: A Conference Report. Amherst, Mass: The Counseling Center, Univ. of Mass., 1966. J. A. Southworth

The Relation Between Self-Satisfaction and Interpersonal Interaction. Amherst, Mass: The Counseling Center, Univ. of Mass., 1966. J. A. Southworth (with Harriet J. Forman)

Counseling and Psychotherapy: A Book of Readings and Commentaries. Holt, Rinehart and Winston: (In press). B. G. Berenson (with R. R. Carkhuff)

The Interpersonal Functioning of College Students: An Evaluation of an Integrated Didactic and Experiential Approach to Training. Submitted, J. Counseling Psychology. B. G. Berenson (with R. R. Carkhuff and Pamela Myrus)

The Counselor's Commitment to the Client. Submitted, J. of Individual Psychology. B. G. Berenson (with R. R. Carkhuff)

Process Variables in Counseling and Friendship. J. of Counseling Psychology (In press). B. G. Bere nson (with J. Martin and R. R. Carkhuff)

Race, Experience and Orientation to Critical Process Variables with Negro Clients. J. of Clinical Psychology (In press). B. G. Berenson (with G. Banks and R. R. Carkhuff)

Attitudes of the College Teacher: A Study of Occupational Choice. Submitted, Personnel and Guidance J., 1966. B. G. Bereason.

The Counselor's Contribution to Facilitative Processes, Ed. R. R. Carkhuff. "Introduction." B. G. Berenson. Parkinson: (In Press).

The Counselor's Contribution to Facilitative Processes, Ed. R. R. Carkhuff. Chapter: "Commitment and Counselor-Client Interaction." B. G. Berenson. Parkinson: (In Press).

Respect and Positive Regard in Interpersonal Processes: A Scale for Measurement. Amherst, Mass.: Counseling Center University of Mass., 1965. B. G. Berenson

Empathic Understanding in Interpersonal Processes: A Scale for Measurement. Amherst, Mass: Counseling Center, Univ. of Mass., 1965. B G. Berenson

PUBLICATIONS: Continued

A Description of the University of Massachusetts, Class of 1968. Amherst, Mass: Counseling Center, Univ. of Mass. 1966. Mary M. Suydam (with S. B. Carlton, and R. D. Scott).

A Study of Three Therapeutic Conditions and Their Relationship to Achievement of Third Grade Students. Lexington, Kentucky: Univ. of Kentucky, 1965. D. N. Aspy.

A Study of the Cumulative Effect of Three Therapeutic Conditions and Their Relationship to Achievement of Elementary School Children. (To be submitted) University of Massachusetts, 1966. D. N. Aspy.

A Study of the Effect of Healthy Clients upon a Counselor's Levels of Therapeutic Functioning. (To be submitted) University of Massachusetts, 1966. D. N. Aspy.

Beyond Counseling and Psychology, (Book in preparation by B. G. Berenson and R. R. Carkhuff) Chapter: "Counseling and Real Life," J. J. Douds.

The Dilemmas in Delinquent Treatment. Accepted for publication by Social Service Review. J. J. Douds (with R. R. Carkhuff)

ARTICLES IN PREPARATION

The role of a Social Psychologist in a Counseling Training Program. B. G. Berenson (with R. R. Carkhuff)

Do We have a Vocational Choice 'Theory?': A Systematic Approach to Vocational Constructs. B. Berenson (with R. R. Carkhuff)

Ideological Needs of College Students. Sarah A. Alleman

The Avoidance of Intimacy in Psychotherapy. Sarah A. Alleman

Sub-chapter in The Facilitators and Retarders, "A Retarding Experience." (Book by B. G. Berenson and R. R. Carkhuff) Chapter, J. J. Douds.

Toward an Expansion of the Experiential Base in Field Instruction. J. J. Douds

Personality Characteristics of Engineering Majors. J. A. Southworth

BOOKS IN PREPARATION

Beyond Counseling and Psychotherapy. Holt, Rienehart and Winston, Inc. (with R. R. Carkhuff). B. G. Berenson.

The Facilitators and the Retarders. (with R. R. Carkhuff) B. G. Berenson.

GRANT SUPPORTED

Kellogg Grant

Parents' attitudes toward educational financing and vocational choice. (In press) Amherst, Mass.: Counseling Center, Univ. of Mass., 1966. Mary M. Suydam (with D. Olson).

Studies of university Freshmen: I. Non-intellective characteristics of entering freshmen. (In press) Amherst, Mass.: Counseling Center, Univ. of Mass., 1966. Mary M. Suydam.

Studies of university freshmen: II College orientation and selected personality characteristics. (In press) Amherst, Mass.: Counseling Center, Univ. of Mass., 1966. (with S. Carlton) Mary M. Suydam.

Studies of university freshmen: III Attitude change during the freshman year. (In press) Amherst, Mass.: Counseling Center, Univ. of Mass., 1966. (with S. Carlton). Mary M. Suydam.

Effects of parental education on attitudes toward student behavior. (In press) Amherst, Mass.: Counseling Center, Univ. of Mass., 1966. (with D. Olson) Mary M. Suydam.

University Grant

The differential effects of therapist race and social class upon client process variables. Faculty Research Grant, Univ. of Mass., approved, 1965. (with R. R. Carkhuff) B. G. Berenson.

TEACHING AND TRAINING

Education 911, School Counseling Procedures. 22 Students. D. Aspy
Psychology 365, 665, Theories and Practice in Counseling. 36 Students. J. A. Southworth
Psychology 860, Basic Concepts in Counseling Psychology. 9 Students. B. G. Berenson
Psychology 872, Graduate Practicum Psychology. 12 (approx.) Students. B. G. Berenson
Sociology 292, Social Welfare. 51 Students. J. J. Douds

Heads of Residence Consultation Program. D. N. Aspy, J. J. Douds (14 Heads of Residence from Women's Dormitories participated)

Graduate Supervision in Counseling Psychology. The entire professional staff participated, serving 12 Counseling Psychology graduate students.

OTHER PROFESSIONAL ACTIVITIES

Service Invitation:

Division XVII, American Psychological Association -- Invitation to review research literature in Counseling Psychology for 1965. B. G. Berenson (with R. R. Carkhuff).

Conventions and Meetings:

Student Culture in the New England State Universities: A Conference. Durham, New Hampshire, December, 1965. J. A. Southworth; Mary M. Suydam; and S. V. Keochakian; and Donal Reutlinger

APGA Convention, Washington, D. C., April 2-7. J. A. Southworth

EPA Convention, New York, New York, April 1-4. Mary M. Suydam

Seminar: The Guidance and Counseling Institute, University of Kentucky, Lexington, Kentucky, December 28-29, 1965. D. N. Aspy

Conference: Student Workshop on Activities Problems. Stockbridge, Massachusetts, October 22-24, 1965. J. A. Southworth and B. G. Berenson

Conference: Consulting problems in Negro Universities. New York, New York, Oct. 10, 1965. J. A. Southworth and B. G. Berenson

Meeting: Psychonomics Society, Chicago, Illinois, Oct. 13-16, 1965. Mary M. Suydam

Counseling Center Directors Meeting. University of Buffalo, October, 1965. J. A. Southworth

Consultation:

Professional Case Conferences. Entire professional staff and R. R. Carkhuff, consultant.

Consultation with the School of Social Welfare, University of New York at Buffalo and the Catholic Family Service. Buffalo, New York, December 28, 29, 1965. J. J. Douds

Consultation with Dormitory Counselors, Heads of Residence and other University staff on student problems. Entire professional staff.

VI. MAJOR ACCOMPLISHMENTS

1. We continue to plan and have implemented plans this year for extending counseling services substantially to the student body and to Student Personnel staff particularly heads of residences. This has been accomplished primarily as a result of our expanded staff and the increased services of graduate students.

2. Research on the student body and parents of students has been expanded and developed into an integrated on-going program of research. Kellogg Foundation Funds and the supporting staff that these funds have provided made this possible.

3. A number of research projects primarily in the area of counseling process and related areas have been conducted over the past year by staff, graduate and undergraduate students. An increased portion of staff time has been devoted to supervising much of this research.

4. We provided orientation and testing services to the largest freshman class in the history of the University. We were pleased especially to provide these services to over 200 "Special" freshmen, and over 1200 at the Boston Branch.

5. We administered Selective Service Examinations to approximately 2000 students during May and June of 1966.

VII. SPECIAL PROJECTS

1. Our work on student culture conducted under Kellogg Foundation support is worthy of special mention.

   The first year of the grant was originally set aside for planning. Fortunately due to the large amount of data collected on our student body and parents in advance of the awarding of the grant, we expect to be able to complete seven separate research studies. We will thus enter our second year of study with a great deal of accomplishment to point to for our first year's effort.

2. Three training groups of heads of residence halls have been conducted. The training consisted of once a week meetings with a staff counselor (or in the case of one group, an advanced graduate student). A formal evaluation was made on a group of heads of residences from eight male residence halls.

VIII FUTURE PLANS AND NEEDS

Personnel

There will be a continued need in the future for additional staff to meet the demands of an expanding university. Counseling Center staff will be utilized increasingly as consultants to other Student Personnel staff and as trainers of and consultants to residence hall counselors. Anticipated additions and turnover in Counseling Center staff will enable selection of new staff especially suited to put into practice the concepts that presently are being developed in the Student Affairs Committee.

Our growing emphasis on studies of student culture, and the probable value of this research to the University, indicate that we should immediately start planning for permanent funding of personnel necessary to continue these studies. Our most immediate need is for a permanent position to continue the junior programing position that is currectly being financed by grant funds. A year from now the need will be for a permanent professional staff person.

Facilities

Our facilities continue to be inadequate. The new Administration Building promises to relieve many of the space limitations. with which we are now contending.

Equipment

We anticipate having many of our current equipment needs met through equipment allotments for the new Administration Building. Close circuit television equipment is quite desirable, but was not requested with the Building. Plans call for requesting this from the Department of Psychology as its contribution to the training of graduate students.

A P P E N D I X

QUANTITATIVE DATA ON OPERATIONS, 1964 - 1965

A. STUDENTS SERVED IN COUNSELING

1. Summer Counseling Students (U/Mass and U/Mass Boston) (Test Scores Computed - 31,000)		3,800
2. Counseling Clientele, Academic year		
Individual Counseling Clients		543
Group Counseling Clients		20
Non-Students Counseled		8
Total Staff-Student Contact Hours	2,017	
(Associated Test Scores Computed)	178	

B. TEACHING - STUDENTS SERVED ACADEMICALLY

Enrollments		
Education 911		22
Psychology 365, 665		36
Psychology 860		9
Psychology 872	(Approx.)	12
Sociology 292		51
TOTAL		130

C. UNIVERSITY EMPLOYEE CANDIDATES EXAMINED

Men		545
Women		589
TOTAL		1,134

Coordinator of Student Activities

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STUDENT ACTIVITIES

Change remains the only constant within the Student Union at the University of Massachusetts. The Student Union continues to represent a fine facility, even though all acknowledge the critical need for more space and better programming.

The Student Union strives to complement the University of Massachusetts by providing services for students, faculty, administration, alumni and guests. Sub-headings of this report explain something of the magnitude of these efforts.

Knowing that the Campus Center will become a reality within the next two calendar years is gratifying to the total community, and the staff of the Student Union will be heavily involved with students, faculty and administrators in the detailed planning throughout the coming year(s). The Student Union Governing Board has been extremely and constructively interested in all areas of the Student Union program and operation. The value of active student participation is vital and has led to significant changes noted in sub-headings within this report.

The characteristic willingness of the professional staff and employees to work and to operate the Student Union three hundred and sixty-three days per year---many days when other University facilities are closed---merits special attention. Some of the professional staff work sixty to eighty hours per week, days as well as nights, in order to meet the needs of the student community for out-of-class activities.

Death claimed two employees during the year: Messrs. Holman P. Huntington and Fred Bailey. Each in his area of service merited great respect.

As the year ended, work was being done by architects on a $150,000 renovation of the ground floor of the present Union in order to provide more seating capacity for the Hatch---to offer improved facilities for student dialogue and food service. Although these increased facilities caused the necessary reduction in Games Area space, the Student Union Governing Board made the difficult decision. It is obvious the actual renovation will not be made until late in the summer of '66, and will continue through spring vacation, 1967.

As of July 1, there will be one office of Student Activities rather than the bifurcation that has existed in the past with the offices of Director, University Program, and Business Manager, Recognized Student Organizations. The need for a single head became increasingly apparent in order to lend the unity necessary to function effectively in total Student Union programming.

Despite occasional questioning as to whether the Student Union is, after all, a "dumping ground" for auxiliary services, the essential answer is that as the University continues to grow, out-of-class activities will expand and merit the careful consideration and thought that can be given only when students, faculty, and administrators share mutual concerns. The most rewarding experience of the year has been the evidences that this is happening.

Assistant Coordinator of Student Activities and Assistant Director of the Student Union

As the school year began the Student Union, like much of the campus, was unprepared for the student onslaught. The main problem was that the new floor of the ballroom was not finished. Among the new Union areas completed during the summer were the Art Corridor, the Ticket Office, and the renovation of the Games Areas.

Constant renovation and over-all cleaning were in evidence throughout the year. The most obvious work was done in the Hatch where booths were removed, the walls painted and the floor patched. The removal of the booths has considerably increased the capacity. To help handle the load on the cafeteria the Commonwealth kitchen was opened in February. The facilities are in the former Music Room and seating for 250 people is located in the Commonwealth Room.

Space is also a growing problem for the Bookstore.

The Assistant Director was also kept busy with such activities as the Fine Arts Council, SWAP Conference, Graduation Task Force, and numberous administrative detail assignments.

Business Manager

With September and the opening of school, the Business Office was faced with many problems. The University Store held up well under the usual fall rush. The Boston store, for which the Student Union is responsible, had a number of problems, but they were slowly worked out. The main problem encountered was supplying funds to the various departments. In December the accounting department was realigned and its workload redistributed in order to better handle special problems, i.e.

The building has been under heavy use. There was evidence of less business on football Saturdays than in the past years. The location of the Stadium probably accounts for this. The Guides Center, new lighting and other new equipment has greatly increased building efficiency.

Gerald Scanlon was appointed to head the Student Automatic Vending Service, turned over by the Athletic Department.

Hopes are high for a new building in 39 months.

Staff Assistant---Busilding Maintenance

Student Union inventory is good; repairs work is constantly going on. Much of this work has been made necessary by vandalism and unwarranted accidents. The monthly renovation is becoming an intricate part of the total building program. During the December vacation the entire building was given one of the best cleaning it has ever received.

The lost and found department has handled a full load and is serving a definite campus need.

Games Area

The Games Area continued to fill a campus recreation need. The area offers games, cards, billiards, bowling, and table tennis. Over the year the area showed a general increase both numerically and financially. Monthly attendance hit a high of 18,000.

The Games Area was used for the all-campus billiards and table tennis tourneys as well as the intramural bowling league. University students also competed in the Region I tournaments and fared very well, bringing home a number of trophies.

Business Manager, R.S.O.

The opening of the centralized Ticket Office in the Student Union lobby has proved a boon to R.S.O. and to all campus activities.

A committee to investigate and make recommendations concerning Ya-Hoo was organized in November. This issue blew up to greater size in the spring.

The Business Manager was often in conference with students and administrators concerning a Communications Board. An agreeable settlement seems distant.

The R.S.O. Office handled the bids, contracts and financial accounting for Winter Carnival and all other major campus activities. It also prepared sample budgets for the classes and residence halls in order to help the many organizations who have not budgeted in the past.

University of Massachusetts-Boston accounts were established early in the year and discussed with administrators from both campuses.

University Program

The year began with the usual "bang" of activities. Dances and rallies were usually a big success. The Opening Convocation, however, suffered from lack of support from all areas. The low response indicates a real need for revamping to be done. The Ballroom floor construction necessitated rescheduling of a number of events. Student Activities Night was a success with 42 organizations represented.

Homecoming Weekend suffered for a total lack of communication and overall organization. Adelphia's proposals for a Homecoming Committee should be a big help for next year.

The Student Workshop on Activities Problems (SWAP) was held in Stockbridge, Massachusetts, and was a success. Great strides were initiated in the women's dormitory group.

Seventeen schools sent representatives to the Association of College Unions Conference held on campus in November. Also that month a record 4,600 people watched the Beach Boys perform for the benefit of the J. F. K. Memorial Library Fund.

February saw a Winter Carnival without snow for the third straight year. The Carnival lasted for a week rather than the former weekend plans. It was generally a success.

The Distinguished Visitors Program (DVP) followed a vigorous schedule all year. Among their presentations were a talk and movie by cartoonist Jules Feiffer, a symposium on Red China led by Felix Greene, and a production of Sean O'Casey's "Pictures in the Hallway".

Concert Association presentations were generally well attended. Two thousand-five hundred (2,500) people listened to the performance by the Robert Shaw Corale.

Student Union Program

One of the best attended programs that ran throughout the year was the Thursday night movies. Foreign films, of generally high quality, also attracted high attendance on Sunday nights. Among the most popular were "La Dolce Vita," "Knife in the Water," and "Through a Glass Darkly."

The art corridor was a big and helpful addition to the Union program. It enabled the Arts Committee to widen their scope and present many more interesting exhibits. The modern art exhibits were greeted with varying amounts of pleasure and scorn.

The Union sponsored a trip to the Shakespeare Festival in Stratford, Connecticut for a presentation of Twelfth Night. The program was well received and should be continued.

Advances were made in the Four College Program but work still needs to be done in order to better coordinate program activities.

The Union sponsored a number of diversified clubs including Bridge, Chess, and Baroque Stone Jewelry.

Food Service

It seems that the biggest problem facing the Union food services has been rising food and labor costs. Despite this fact, the Hatch has been able to offer a wider variety of foods and has been remaining open for longer hours. This demand for food service to remain open longer, coupled with the competitive food labor market and the price problems already mentioned have caused many problems for the service.

The Commonwealth Kitchen has helped to relieve some of the load on the Hatch. A new dining booklet has been published and distributed. The Thanksgiving dinner in the Hatch was received with minimum response and will probably be modified or discontinued. The free coffee distribution to residence halls during finals proved to be a budget drain.

The labor shortage was eased some when wages were increased for students. There was a great deal more response to job calls. The increased prices for food in the Hatch were finally voted in by the Student Union Governing Board in April. This should help defer some costs.

Conference meals often increased volume. Picnics did the same thing during the spring.

Student Automatic Service

After being appointed to head the service, Mr. Gerald Scanlon held meetings with all people in any way concerned with campus vending machines. One of the main problems discussed was that of machine cleanliness.

December vacation saw a major cleaning job on all machines and the addition of twenty-two (22) new machines of various kinds around campus.

The office worked out new methods for contracting and bidding. These arrangements were used during the spring bidding.

A snack facility available for coed use was opened in Baker Dormitory in January. Women students did not use the facilities as frequently as was hoped for.

Vandalism was a problem throughout the year. Damage and/or stealing occured frequently.

University Store

The September book rush saw sales up 15% over the past year. (Books up 12%, supplies up 22%) The Commonwealth Room was over crowded and the doors had to be locked several times. One day in September the University Store had it's first day with sales of over $10,000.

Storage space is at a minimum. The increased use of paperbacks has made many areas of work more difficult. The two weeks at the start of the fall are becoming a half-million dollar income period.

New ventilating was completed in October. The November book sale was the most successful to date.

Second semester book rush ran more smoothly. Stocking was still a problem.

January reports show the Boston Store running in the black.

The biggest problems facing the University Store are space and time. There is not enough space for books and supplies to be stored. There is not even enough space to shelve many things in the store itself. More time is necessary to set up for the book rush.

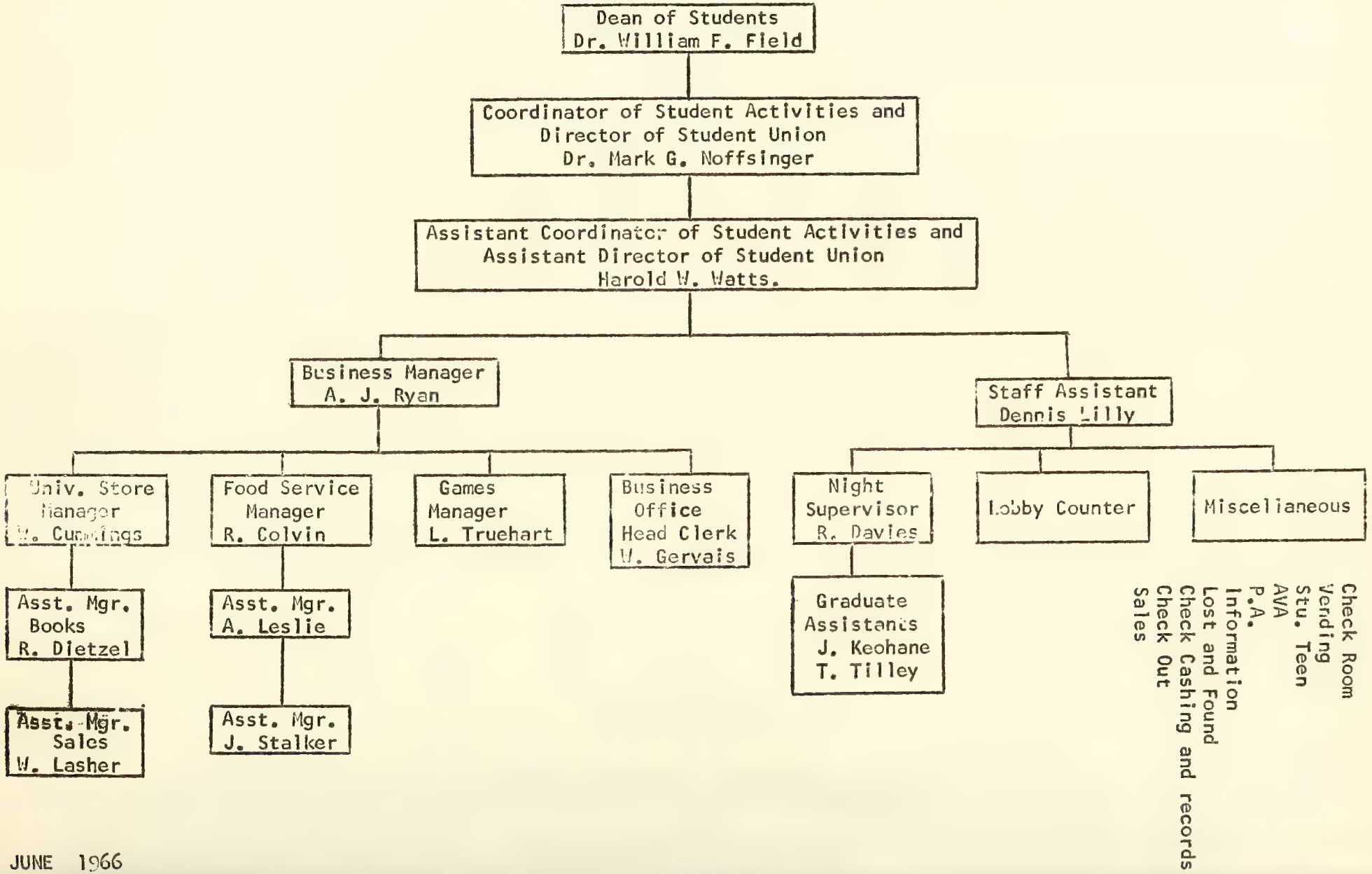
Retail sales will reach $1,300,000 for the year.

Boston Campus Store

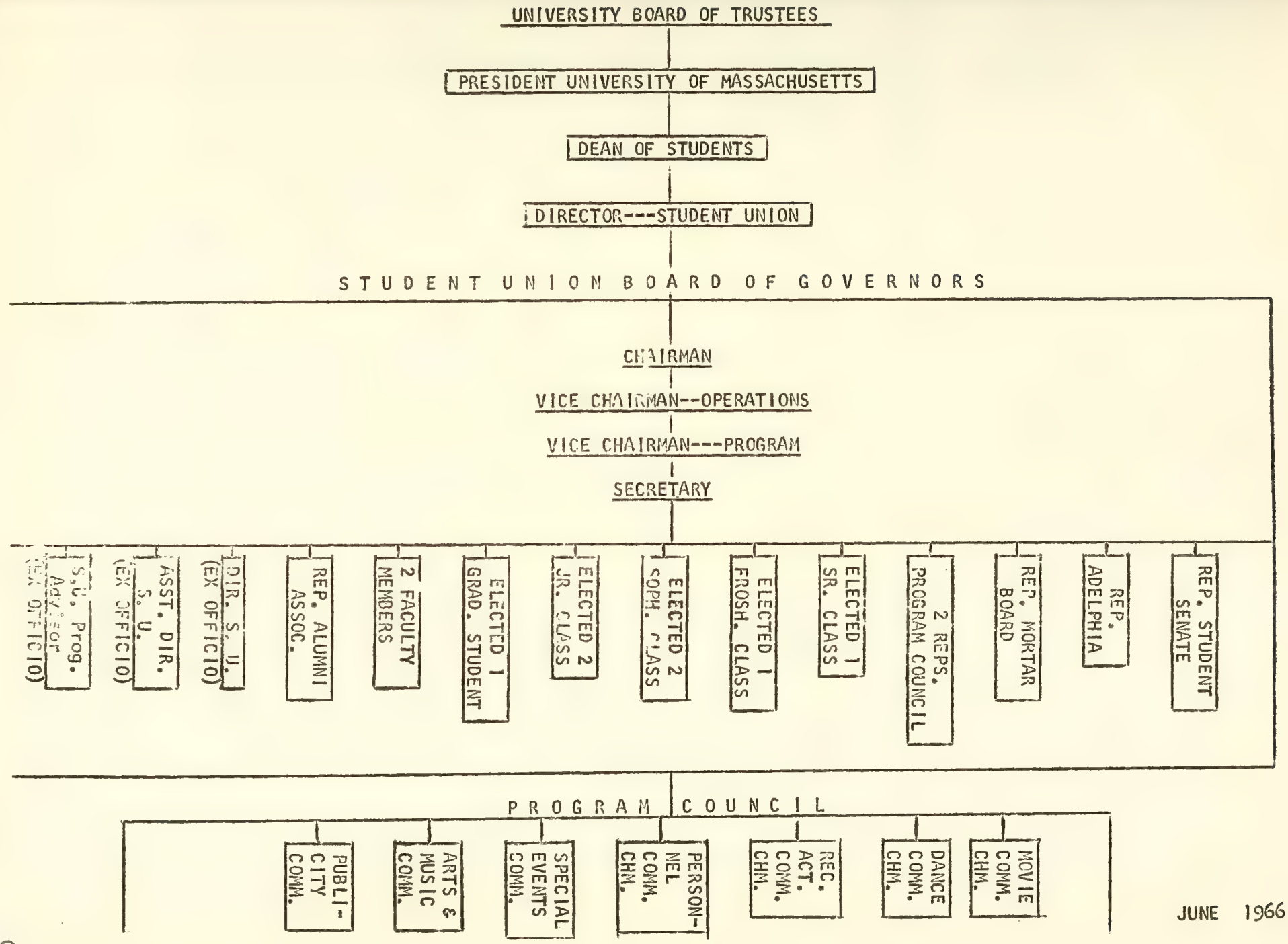
The Boston Campus Store opened on September 15, the opening day of school and three days later than originally planned. Maintenance and other work forced the store to close for half-day periods, five times during September. Many operations were running on a temporary basis. By the end of the month, however, things were going well and more efficiency.

October saw a reorganization of the physical plan. Additional storage room was added to handle the more diversified stock. Faculty and administration support was outstanding. The store may not pay its own way for sometime but the good will and general support it enjoys has significantly contributed to the relatively high income of the store. Book sales have been unexpectedly high. The store is on secure footing and should continue to produce on income higher than the estimated projections.

STUDENT UNION



JUNE 1966


UNIVERSITY BOARD OF TRUSTEES
PRESIDENT UNIVERSITY OF MASSACHUSETTS
DEAN OF STUDENTS
DIRECTOR---STUDENT UNION
STUDENT UNION BOARD OF GOVERNORS
CHAIRMAN
VICE CHAIRMAN--OPERATIONS
VICE CHAIRMAN---PROGRAM
SECRETARY
REP. STUDENT SENATE
REP. ADELPHIA
REP. MORTAR BOARD
2 REPS. PROGRAM COUNCIL
ELECTED 1 SR. CLASS
ELECTED 1 FROSH. CLASS
ELECTED 2 SOPH. CLASS
ELECTED 2 JR. CLASS
ELECTED 1 GRAD. STUDENT
2 FACULTY MEMBERS
REP. ALUMNI ASSOC.
DIR. S. U. (EX OFFICIO)
ASST. DIR. S. U. (EX OFFICIO)
S.U. Prog. Advisor (EX OFFICIO)
PROGRAM COUNCIL
MOVIE COMM. CHM.
DANCE COMM. CHM.
REC. ACT. COMM. CHM.
PERSONNEL COMM. CHM.
SPECIAL EVENTS COMM.
ARTS & MUSIC COMM.
PUBLICITY COMM.

JUNE 1966

STUDENT UNION STATISTICAL RECORD

1965-1966

11 MONTHS

1. CUSTOMER COUNT / CHECK HANDLING

"HATCH"	UNIVERSITY STORE	GAMES	LOBBY COUNTER	CHECK HANDLING NO.	CHECK HANDLING AMOUNT
1,767,179	481,589	152,689	521,564	144,244	$2,258,570.87

2. CATERING SERVICE

# CATERED MEALS	# SERVED	# RECEPTIONS	# SERVED	TOTAL # SERVED	TOTAL # FUNCTIONS SERVED
853	26,776	417	24,756	51,532	1,270

3. FACILITIES USAGE

	NO.	NO. ATTENDING
UNION PROGRAM AND STAFF MEETINGS	170	2,629
PROGRAM ACTIVITIES	85	42,819
STUDENT MEETINGS - NON UNION	1,851	49,517
STUDENT ACTIVITIES - NON UNION	359	56,871
CONFERENCES AND MEETINGS	601	14,489
OFFICIAL UNIV. MEETINGS & FUNCTIONS	708	99,279
LOBBY ACTIVITIES	404	
TICKET SALES - NO. OF DAYS	86	

STAFF TRAINING AND PROFESSIONAL PARTICIPATION

Dr. Mark G. Noffsinger, Coordinator of Student Activities and Director Student Union

Attended the annual meeting of the Higher Education Association, March 11-15, 1966, Chicago, Illinois.

Mr. Harold W. Watts, Assistant Coordinator of Student Activities and Assistant Director Student Union

Was a Special Committee member at the annual meeting of the Association of College Unions-International in New Orleans, Louisiana, March 19-25, 1966.

Mr. A. J. Ryan, Business Manager

Attended College Union Management Institute at Oklahoma State University in Stillwater, July 18-23, 1965. Also attended Regional Meeting College Stores of New England at Northfield Schools, Northfield, Massachusetts, November 9-10, 1965.

Mr. Dennis E. Lilly, Staff Assistant

Was an academic delegate for Western State University of Kentucky to the inaugural of the ninth President of Springfield College, April 1966.

Mr. Richard C. Davies, Staff Assistant, Evening Supervisor

Attended the New England Regional Conference of the Hall, Recreation and Park Association, May 15-18, 1966, Boston, Massachusetts.

Mr. Gerald F. Scanlon, Staff Assistant, Student Automatic Service

Attended the New England Park Association Conference at the Student Union, April 20-21, 1966.

Mr. Armand H. DeGrenier, Business Manager, Recognized Student Organizations

Attended the American Personnel and Guidance Association National Conference on April 4-7, 1966, Washington, D.C.

Mrs. Mary J. Hudzikiewicz, Acting Director of University Program Office

Attended the annual conference of the Association of College and University Concert Managers at New York City, December 12-15, 1965. She was a member of a panel entitled "The Union Philosophy Revised" while attending the national meeting of the Association of College Unions, New Orleans, Louisiana, March 19-25, 1966.

Mr. Russell W. Colvin, Food Service Manager

Attended the National Restaurant Association Conference in Chicago, Illinois, May 23-26, 1966. Also attended the New York Hotel and Restaurant Show, November 9-11, 1965.

Mr. Winthrop L. Cummings, Jr., Manager, University Store

Attended the Regional Meeting of the National Association of College Stores at Concord Hotel, Lake Kiamesha, New York, on October 26 and 27, 1965. On November 9-10, 1965 attended the fall meeting of College Stores of New England at Northfield Schools, Northfield, Massachusetts. Also attended the Annual Meeting of the National Association of College Stores in Chicago, Illinois, April 18-22, 1966.

Mr. Richard Dietzel, Assistant Manager (Books), University Store

Attended the fall meeting of the College Stores of New England, Northfield Schools, Northfield, Massachusetts, November 9-10, 1965. Also attended the Regional Meeting of the National Association of College Stores, Concord Hotel, Lake Kiamesha, New York, October 26-27, 1965.

Mr. William Lasher, Assistant Manager (Supplies), University Store

Attended the fall meeting of the College Stores of New England, Northfield Schools, Northfield, Massachusetts, November 9-10, 1965.

Harold C. Durgin, University Conference Co-ordinator

Attended the Annual Adult Education Conference in New York City November 20-24, 1965.

Mr. Frank Benoit, Assistant Manager (Boston Campus Store), University Store

Attended the spring meeting of the College Stores of New England at M.I.T., Boston, Massachusetts, April 26-27, 1966.

STUDENT UNION BUDGET
1966-1967

The Student Union Budget is based on a total enrollment of 12,835 (F.T.E.) students.

Two additional units have been assigned to the Student Union for supervision and operation; these are Student Automatic Fund (Vending) and the Boston Campus Bookstore.

As the Student Union enters its tenth year of operation, change and renovation have become key words: change because of new concepts of what a Student Union should be, and renovation to keep the building from deteriorating as a result of its tremendous use.

This year, there was a $25,000.00 expenditure for the installation of a small kitchen and Commonwealth dining area complex. The coming year will bring further changes in order to render even better service.

STUDENT UNION BUDGET 1966-1967

GENERAL FUND INCOME AND EXPENSE

Income			
Student Fees	$251,330.00		
Transfer from Food Service	60,000.00		
Transfer from University Store	55,000.00		
Games Area--Net	2,071.34		
Conferences--Net	4,638.32		
Duplicating and Poster Service--Net	220.00		
Rental and Custodial Fees	9,000.00		
Other Services (Vending, pay phones, etc.)	8,100.00		
		$390,359.66	
Expenses			
Administration	$102,265.39		
Maintenance	90,090.37		
Student Activities	54,413.98		
Building Rental (to State Treasurer)	120,000.00		
Depreciation	6,825.88		
Renovations	12,270.00		
Miscellaneous	250.00		
		386,115.62	
Excess Income over Expenses--To Capital Account			$4,244.04
Equipment from Capital Account			$8,370.00

GAMES AREA BUDGET

1966-1967

Income				
Bowling, Billiards, Table Tennis			30,000.00	
Locker Rentals (semester)			300.00	
TOTAL				$30,300.00
Expenses				
Payroll:	Regular	14,986.20		
	Group Insurance	153.84		
	Special Reserve	1,498.62		
	Student	3,000.00		
			19,638.66	
Office Services			750.00	
Telephone			70.00	
Miscellaneous			30.00	
Supplies			2,500.00	
Repairs				
Bowling Lanes		500.00		
Billiard Tables		600.00		
Table Tennis Tops		300.00		
			1,400.00	
Rental				
Pinsetters			3,840.00	
TOTAL				28,228.66
Excess Income over Expenses				$ 2,071.34

February 28, 1966

CONFERENCE BUDGET

1966-1967

Income			$140,000.00
Expenses			
Payroll:	Regular	16,467.95	
	Group Insurance	227.28	
	Special Reserve	755.80	
	Professional Increment	185.65	
	Other Labor	6,000.00	
			23,636.68
Other			
	Clerical Service--S. U.	1,200.00	
	Education, Travel, Entertainment	1,200.00	
	Office Supplies & Miscellaneous	2,500.00	
	Telephone	325.00	
	Rental--Student Union	2,000.00	
	Lodging and Rental	25,000.00	
	Meals	72,000.00	
	Linen	7,500.00	
			111,725.00
TOTAL EXPENSES			135,361.68
EXCESS INCOME OVER EXPENSES			$ 4,638.32

February 28, 1966

STUDENT UNION BUDGET 1966-1967

INCOME ACCOUNTS

STUDENT FEE INCOME

10,285	Four Year Students	@ $20.00	$205,700.00	
550	Stockbridge (1st Semester)	@ $10.00	5,500.00	
413	Stockbridge (2nd Semester)	@ $10.00	4,130.00	
	Graduates		20,000.00	
	Summer School		16,000.00	
				$251,330.00

OTHER INCOME

Pay Telephones	3,500.00	
Vending	3,500.00	
Bad Check Charges	800.00	
Miscellaneous	300.00	
		$ 8,100.00

Student Union Budget 1966-67

Office Services (Signs-Duplicating)

Income			
Sale of Services			7,000.00
Expense			
Payroll Part time	2,000.00		
Students	1,500.00		
Mimeo Paper & Supplies	1,200.00		
Ditto Paper & Supplies	500.00		
Embosograf signs Paper and supplies	300.00		
Poster Printing Paper and supplies	1,000.00		
Oilcloth Signs Cloth, paper supplies	250.00		
Repairs	30.00		
		6,780.00	6,780.00
Excess Income over Expense			220.00

MAINTENANCE DEPARTMENT BUDGET

1966-1967

Expenses			
Payroll			
Regular	66,435.25		
Group Insurance	1,377.60		
Special Reserve	6,643.52		
Student Labor	1,755.00		
		76,211.37	
Uniforms	272.00		
Supplies	7,290.00		
Repairs, Parts, Additions	4,792.00		
Labor from Outside	1,525.00		
		13,879.00	
TOTAL EXPENSES			$90,090.37

February 28, 1966

Student Union Budget 1966-67

Student Activities

Income				
Senate Appropriation			14,000.00	
Interest			2,800.00	
Rental Semester Lockers			60.00	
Ticket Office			800.00	
				17,660.00
Expenses				
Regular Payroll	62,426.10			
Group Insurance	1,206.70			
Special Reserve	3,270.53			
Professional Increment	405.25	67,308.58		
Less Credits (Collegian Senate)		-4,824.60		
		62,483.98		
Printing	400.00			
Office Supplies	700.00			
Telephone	625.00			
Miscellaneous	100.00			
Postage net	300.00			
Office Machine Service net	110.00			
Education, Travel Entertainment	300.00			
Semester Lockers	60.00			
Locked Bags for Change	100.00	2,695.00		
				65.178.98
Net Expense				47,518.98

Student Union Budget 1966-67

Student Union Program

Income			
Arts & Music		400.00	
Dances		3,200.00	
Recreational Activity		100.00	
Movies		8,000.00	
Total Income			11,700.00
Expenses			
Office	780.00		
Arts & Music	9,055.00		
Crafts	400.00		
Dances	1,625.00		
Recreational Activity	1,500.00		
Movie	3,875.00		
Publicity	600.00		
Special Events	760.00		
Total Expense		18,595.00	
Allocation from General Fund			6,895.00
			18,595.00

STUDENT UNION BUDGET 1966-1967

RENOVATIONS AND IMPROVEMENTS

Commonwealth Room--Art Exhibit Walls		$1,250.00	
Emergency Lights		2,200.00	
Lobby Counter		500.00	
Drapes Lobby and Ballroom		6,000.00	
6 Clocks		120.00	
10 Window Exhaust Fans (Dining Rooms, Melody Kitchen)	@ $150.00	1,500.00	
Type for Line-O-Scribe		400.00	
Head for Embosograf Machine		300.00	
			$12,270.00

CAPITAL EXPENDITURES (EQUIPMENT)

1 Mimeograph		600.00	
1 Electrostatic Stencil Cutter		1,500.00	
1 Desk		255.00	
5 Desks	@ $175.00	875.00	
1 Chair		80.00	
5 Chairs	@ $ 40.00	200.00	
3 Typewriters	@ $320.00	960.00	
4 Stands for Machines	@ $ 30.00	120.00	
1 Adding and Calculator		450.00	
1 Adding Machine		150.00	
2 File Cabinets (lock)	@ $ 80.00	160.00	
12 units Lawn Furniture	@ $135.00	1,620.00	
1 Table Saw for Shop		200.00	
1 Water Cooler for Commonwealth Room		200.00	
Audio-Visual Equipment		1,000.00	
			$ 8,370.00

STUDENT UNION BUDGET 1965-1967

FOOD SERVICE INCOME AND EXPENSE

Cafeteria Sales	$615,000.00			
Catering Sales	95,000.00			
Total Sales			$710,000.00	(100%)
Cost of Goods Sold:				
Inventory--Beginning	4,900.00			
Food Purchases	305,300.00	(43%)		
	310,200.00			
Less Discounts	1,400.00			
	308,800.00			
Less Inventory Ending	5,000.00			
Cost of Goods Sold	303,800.00	(42.79%)		
Gross Profit on Sales	406,200.00	(57.21%)		
Other Income:				
Miscellaneous	2,600.00			
Commissions (Vending, etc.)	1,100.00			
Juke Box	1,300.00			
			5,000.00	(100%)
TOTAL INCOME			715,000.00	
Gross Profit on Income			411,200.00	
Less Expenses:				
Payroll				
Regular	270,093.19			
Group Insurance	4,144.95			
Special Reserve	24,566.36			
Professional Increment	222.85			
		299,027.34	(41.81)	%
Student		13,915.00	(1.96)	
			312,942.34	(43.77)
Office Services			5,335.00	(.75)
Supplies			28,000.00	(3.94)
Telephone			600.00	(.08)
Repairs and Maintenance			4,825.00	(.68)
Laundry			7,500.00	(1.06)
China and Silver			2,800.00	(.40)
Cooking Fuels			600.00	(.08)
Depreciation			4,000.00	(.56)
Education, Travel, Entertainment			500.00	(.08)
Advertising			125.00	(.02)
Uniforms			100.00	(.01)
				367,327.34 (51.75)
Income				43,785.51 (6.16)
To Student Union for 1967-68 Budget				40,000.00
Retained Income				3,785.51
Equipment to be purchased from capital account	13,809.00			

CAPITAL IMPROVEMENTS

Electric Grille	$ 800.00
Hobart Model VCM-40 Vertical Cutter & Mixer	1,500.00
Catering Slicing Machine	550.00
Cash Register (Catering)	1,900.00
Catering Refrigerator	1,500.00
72 Hatch Thonet chairs @ 12.00	864.00
15 - 5 Ft. Thonet tables @ 50.00	750.00
1 - 5 Gal. Aervoid	100.00
Aervoid Mobile Coffee service unit	300.00
Food Waste disposer with table and feed cone	1,200.00
Mobile 5 Ft. Grille (for use at student functions)	600.00
J & J cart	160.00
3 Small fans @ 20.00	60.00
2 Dish & tray dollies @ 110.00	220.00
Portion scales	55.00
Catering equipment (buffet dishes, chafing dishes, decorations, etc.)	200.00
12 Outdoor umbrella Redwood tables & chairs @ 50.00	600.00
Portable sectional mobile dish carrier	300.00
2 Mobile food carters @ 125.00	250.00
	$ 11,909.00
Cash Register (Hatch)	1,900.00
	$ 13,809.00

REPAIRS & MAINTENANCE

Labor concerning electric grille installation	$ 125.00
Installation cost for food waste disposer	500.00
East upper Hatch window ventilation	700.00
Normal estimated	3,500.00
	$ 4,825.00

STUDENT UNION BUDGET 1966--1967
THE UNIVERSITY STORE

	SUPPLIES	BOOKS	LOBBY	TOTAL
Sales	$480,000.00	$920,000.00	$115,500.00	$1,515,500.00
Cost of Goods Sold	$336,000.00	$763,600.00	$ 98,400.00	$1,198,000.00
Gross Profit on Sales	$144,000.00	$156,400.00	$ 17,100.00	$ 317,500.00

Plus Other Incomes:				
Post Office				$ 4,000.00
Miscellaneous				$ 400.00
Xerox				$ 23,000.00
Check Room				$ 1,100.00
Bus Tickets				$ 5,000.00
Lab. Fees				$ 9,000.00
Total Income				$ 360,000.00
Less Expenses:				
Payroll				
Regular	$123,538.00			
Group Insurance	$ 1,924.44			
Special Reserve	$ 9,506.28			
Prof. Increment	$ 469.00			
		$135,437.72		
Student		$ 22,000.00		
Total			$157,437.72	
Student Union Service Charge			$ 6,400.00	
Supplies Expense			$ 4,500.00	
Insurance			$ 3,100.00	
Depreciation			$ 2,600.00	
Miscellaneous			$ 5,500.00	
Repair, Maintenance & Additions			$ 1,000.00	
Telephone & Telegram			$ 1,100.00	
Postage & Transportation			$ 1,200.00	
Advertising			$ 300.00	
Education & Travel			$ 1,000.00	
Xerox Services			$ 17,605.20	
Total Expenses				$201,742.92
Net Income				$158,257.08
Transfer to S. U. General Fund				$80,000.00
Retained Income				$78,257.08

STUDENT UNION BUDGET 1966-1967
UNIVERSITY STORE--LOBBY COUNTER

INCOME				
Sales	$115,500.00			
Cost of Goods Sold	$ 98,400.00			
Gross Profit On Sales	$ 17,100.00			
				$17,100.00
Plus Other Income:				
Check Room	$ 1,100.00			
Bus Tickets	$ 5,000.00			
Total Income				$23,200.00
Less Expenses:				
Payroll				
Regular	$ 12,430.75			
Group Insurance	$ 146.88			
Special Reserve	$ 1,243.00			
		$13,820.63		
Student		$ 7,000.00		
Total			$20,820.63	
Student Union Service Charge		$ 1,275.00		
Supplies Expense		$ 459.00		
Telephone		$ 126.00		
Miscellaneous		$ 225.00		
			$ 2,085.00	
Total Expense				$22,905.63
Excess Income Over Expense				$ 294.37

STUDENT UNION BUDGET, 1966-1967
BOSTON CAMPUS STORE

INCOME	SUPPLIES	BOOKS	TOTAL
Sales	$25,000.00	$115,000.00	$140,000.00
Cost of Goods Sold	$17,500.00	$ 95,450.00	$112,950.00
Gross Profit on Sales	$ 7,500.00	$ 19,550.00	$ 27,050.00
Other Income			
Total Income			$27,050.00

Expenses:

Payroll				
Regular	$12,792.85			
Group Insurance	$ 146.88			
Special Reserve	$ 657.00			
Professional Increment	$ 130.00			
		$13,726.73		
Student		$ 3,000.00		
Total			$16,726.73	
Supplies		$ 350.00		
Repairs, Maintenance		$ 150.00		
Postage & Freight		$ 400.00		
Miscellaneous		$ 2,000.00		
Education & Travel		$ 250.00		
Depreciation		$ 800.00		
			$ 3,950.00	
				$20,676.73
Excess Income Over Expense				$ 6,373.27

Annual Report

Office of Admissions and Records

July 1, 1955 - June 30, 1956

1. Expenditures and Appropriations

Purpose	Expenditures 1964	Expenditures 1965	Allowance 1966
01 Salaries, Permanent	----	----	----
02 Salaries, Other	----	----	----
03 Services, Non-Empl.	6,382.82	11,347.00	13,000.00
10 Travel	1,348.96	2,825.00	3,675.00
11 Advert. & Print	1,932.84	1,800.00	5,000.00
12 Maint. & Repn.	166.35	170.00	750.00
13 Special Supplies	4,985.47	2,700.00	10,000.00
14 Office & Admin.	9,632.99	5,000.00	7,125.00
15 Equip.	645.00	3,200.00	370.00
16 Rentals	360.00	5,360.00	10,000.00
Totals	26,518.36	33,282.00	49,920.00

2. Personnel

1963		1964	1965
Registrar	1	Dean of Admis. & Records	1 1
Assoc. Registrar	2	Assoc. Dean of Admis.	2 3
Assistant Registrar	1	Asst. Dean of Admis.	1
Principal Clerk	1	Registrar	1 1
Senior Clerk-Steno	2	Staff Assistant (Recorder)	1 1
Senior Clerk-Typist	1	Staff Assistant (Asst. to Registrar)	1 1
Junior Clerk-Steno	4	Principal Clerk	1 1
Junior Clerk-Typist	4	Senior Clerk-Steno	2 2
		Senior Clerk-Typist	1 3
		Junior Clerk-Steno	4 4
		Junior Clerk-Typist	6 7

3. Organization of Office of Admissions and Records

Dean of Admissions and Records - 1
Associate Dean of Admissions - 2
Registrar - 1
Staff Assistant (Recorder) - 1
Staff Assistant (Assistant to Registrar) - 1
Head Clerk - 1
Senior Clerk-Steno - 2
Senior Clerk-Typist - 3
Junior Clerk-Steno - 4
Junior Clerk-Typist - 7

4. Students as Clientele Served

See Appendix I, Annual Report of Admissions and Records

5. Faculty Publications

None

6. Major Accomplishments

Applications for admission to the freshman class numbered approximately 16,200. Transfer applicants numbered 2400.

Preselection in college admissions at the University of Massachusetts using methods of data processing and multiple variable prediction enabled a staff of four admission officers to efficiently process 18,250 freshman applications and admit a class of 3100 highly qualified applicants at Amherst and 1,000 at the Boston Campus.

Total contacts in the Admissions Office (applications, College Board scores, and interviews) numbered 50,000.

7. Special Projects

See Appendix I Annual Report of Admissions and Records (pages 1-7).

8. Personnel Needs

1. Junior Clerk-Stenographer (2), Senior Clerk-Stenographer (1), Senior Clerk (1). In order to handle the increased number of applications and the record keeping functions efficiently, it is essential that an orderly expansion of the clerical staff in the Admissions and Records Office be planned for the future. As the size of undergraduate classes increase, the amount of work relating to maintenance of permanent record cards increases. These positions are needed in the Office of Admissions and Records.

UNIVERSITY OF MASSACHUSETTS

Annual Report of Admissions and Records 1965

I A. Membership of The Board of Admissions and Records.

G. A. Cannon	College of Arts and Sciences
L. C. Mainzer	College of Arts and Sciences
S. M. Greenfield*	College of Arts and Sciences
F. P. Jeffrey	College of Agriculture
F. H. Mulling	School of Business Administration
Miss H. F. O'Leary	School of Education
J. S. Marcus	School of Engineering
Miss H. R. Vaznaian	School of Home Economics
Miss M. E. Gilmore	School of Nursing
S. W. Kauffman	School of Physical Education
Dr. R. W. Gage	Health Service
J. A. Southworth	Counseling and Guidance Office
W. C. Starkweather, Secretary	Office of Admissions and Records
W. D. Tunis, Chairman	Office of Admissions and Records

* Elected member of The Faculty Senate.

B. Admissions and Records Office Professional Staff

W. D. Tunis	Dean of Admissions and Records
R. J. Doolan	Associate Dean of Admissions
E. W. Beals	Associate Dean of Admissions
D. P. Lawrence	Associate Dean of Admissions
W. C. Starkweather	Registrar
Mrs. Helen M. Perry	Recorder
L. C. Turner	Assistant Registrar

II Summary of activities of The Board of Admissions and Records.

A. Student Petitions

Petitions	Granted	Denied
Re-admission	37	60
Senior credits in absentia	6	0
Waiver of a graduation requirement	1	1
Permission to graduate with cumulative average under cutting point of former class	5	3
Waiver of 10 semester rule	3	2
Request for graduation with honors with less than 60 credits in residence	1	1
Waiver of Entrance Requirement	2	5

B. General policies voted by The Board of Admissions and Records.

1. Students who had dropped with W or WP below the 12 credit minimum load without approval to carry on under load should be considered as full time students in retention consideration.

2. The inclusion of non-credit (entrance, language repeat) courses as 3 credit course equivalents for purposes of minimum load and retention average calculations.

3. The Admissions Office shall be allowed to waive published entrance subject requirements in a very limited number of exceptional cases where the student would otherwise be clearly admissible to The University.

4. Authorized The Registrar to interpret the terms of the core curriculum in transfer cases liberally, seeking consultation from the appropriate academic departments, and reporting sample cases periodically to The Board as he deems necessary.

5. A student with a cumulative average below 2.0 is not to be re-assigned to a lower class prior to his seventh semester, when, through credit deficiency, it becomes apparent that he cannot graduate with his entering class. Re-admitted students are assigned to a new class, as appropriate.

C. The Faculty Senate voted to refer for study to The Board of Admissions and Records the following:

1. Grading system of The University
(Report approved by Faculty Senate January 1966)

III An analysis of the applicants to The University of Massachusetts electing The Candidate Reply Date, Spring 1965*

The Candidate Reply Date is established as a "gentlemen's agreement" by some member institutions of The College Entrance Examination Board. The purpose of this date is to give candidates for admission ample time and opportunity to explore and hear from colleges and universities of their choice without pressure for a decision. The date is set for the first Monday in May and allows a two week period for those institutions that make their admissions decisions in mid April. The University of Massachusetts has subscribed to The Candidate Reply Date for a number of years. Each candidate who is accepted before the middle of April is given the opportunity to either accept the offer of admission or notify The University of his desire to wait until May. During the admissions year of 1964-65, each of these candidates was asked to complete a return post card indicating this choice of the reply date and the other institutions in which he was interested.

The purpose of this study was to determine: (1) The number of these candidates who enter The University, and (2) Those colleges and universities the candidates indicated as other choices.

A total of 994 returns were received from men with 907 (91.2%) indicating one or more choices of other institutions and 849 returns were received from women with 762 (89.8%) indicating one or more choices of other institutions. With an estimated median predicted grade point average of 1.9 for all freshman applicants for the admissions year 1964-65, the median of 2.21 for men and 2.49 for women indicates that the candidate reply date group was well above average of the total applicant pool. From the 994 men in the candidate reply date group, 303 entered The University.

For the women, 281 entered out of the group of 849. The men indicated as their first choice 118 other colleges and universities and the women listed 109 different institutions. It is interesting to note that for each group (men and women) approximately 70% were waiting to hear from 22 institutions and 50% of these were waiting for replies from 12 colleges or universities. A small number of other Massachusetts state supported schools are represented on the list. These represent, however, only 2.2% of the returns for the men and 6.1% for the women. In this group, only about one-third entered The University.

Summary

1. The Candidate Reply Date group represents an above average calibre of candidate with regard to secondary school records and Scholastic Aptitude test scores.

2. Approximately 2/3 of those electing the Candidate Reply Date do not enter The University.

3. The competition for these students is primarily with the prestige - private institution.

4. The Candidate Reply Date group has little or no effect on other state institutions.

The complete study.

"*An analysis of the applicants to The University of Massachusetts electing the Candidate Reply Date Spring 1965" by Robert J. Doolan is available from The Office of Admissions and Records.

IV Community College Transfers

It is the policy of The University to accept all qualified transfer applicants from Massachusetts Regional Community Colleges. Qualified applicants are defined as students who have completed the two year liberal arts transfer program with a high C average and have the full recommendation of the academic personnel at the community college.

In order to plan adequate places for community college transfers in the future, The Office of Admissions and Records surveyed the existing community colleges and requested estimates on numbers of qualified applicants who will be seeking admission to The University during the next six years. The data are presented in the following table:

Projected Community College Transfers
to The University of Massachusetts
1965-1970

Community College	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Berkshire (Pittsfield)	31	60	65	90	95	125
Cape Cod (Hyannis)	19	25	40	45	45	50
Greenfield	25	30	35	35	40	45
Holyoke	46	70	105	120	145	160

Community College	1965-66	1966-67	1967-68	1968-69	1969-70	1970-71
Mass.Bay (Boston)	38	50	90	100	105	125
Mt.Wachusett (Gardner)	2	15	20	20	25	25
Northern Essex (Haverhill)	17	50	70	90	120	150
North Shore (Beverley)	-	15	20	20	25	25
Quinsigamond (Worcester)	13	30	40	50	60	70
Total	191	345	485	570	660	775

Approximately twice the number listed above apply for transfer, however, only about 50% receive a full recommendation for transfer to The University. Over 85% of those accepted actually enter The University - A very high rate of matriculation.

The projections given above will fluctuate for the next few years depending upon the rate of growth of the present community colleges and the establishment of new community colleges.

In general, the projections given above we believe are on the low side.

Detailed reports on the performance of community college transfer students are available in the Office of Admissions and Records.

V In June, 1964, The University of Massachusetts was authorized by the legislature of The Commonwealth to establish a Boston campus in order to provide opportunities in public higher education to larger numbers of students in The Greater Boston area.

The Office of Admissions and Records was given the responsibility of recruiting and admitting the first freshman class at The University of Massachusetts - Boston.

The following table gives an admissions analysis for 1964-65:

Admissions Analysis
University of Massachusetts - Boston

	Freshmen			Transfers			
	Instate	Out	Total	Instate	Out	Total	Returning
Applied							
Men	1427	20	1447	100	2	102	4
Women	852	10	862	32	2	34	-
Total	2279	30	2309	132	4	136	4
Accepted							
Men	1008	68	1016	38	-	38	2
Women	717	6	723	16	1	17	-
Total	1725	14	1739	54	1	55	2

	Freshmen			Transfers			
	Instate	Out	Total	Instate	Out	Total	Returning
Paid Matriculation							
Men	872	3	875	31	-	31	-
Women	531	4	535	14	1	15	-
Total	1403	7	1420	45	1	46	-
Paid Counseling							
Men	768	2	770	4	-	4	-
Women	434	4	438	2	1	3	-
Total	1202	6	1208	6	1	7	-

Enrolment Fall 1965

Men	776
Women	441
Total	1217

The profile for the Class of 1969 at The University of Massachusetts - Boston is given in the following tables:

DISTRIBUTIONS OF CEEB .. SAT SCORES AND HIGH SCHOOL RANK
FOR MALES AND FEMALES AT THE UNIVERSITY OF MASSACHUSETTS - BOSTON

Class of 1969

SAT - Verbal

	Men		Women		Total	
	N	%	N	%	N	%
700-up	10	1.5	7	1.7	17	1.6
650-699	31	4.7	19	4.6	50	4.7
600-649	62	9.4	29	7.1	91	8.5
550-599	125	19.0	82	20.0	207	19.4
500-549	118	18.0	91	22.2	209	19.6
450-499	147	22.4	87	21.3	234	22.0
400-449	107	16.3	62	15.2	169	15.9
350-399	47	7.2	26	6.4	73	6.8
300-349	8	1.2	6	1.5	14	1.3
250-299	2	0.3	0	0.0	2	0.2
	657		409		1066	

SAT - Mathematics

	Men		Women		Total	
	N	%	N	%	N	%
700-up	15	2.3	4	1.0	19	1.8
650-699	36	5.5	14	3.5	50	4.7
600-649	115	17.5	31	7.7	146	13.8
550-599	126	19.1	55	13.7	181	17.1
500-549	144	21.9	87	21.6	231	21.8
450-499	130	19.7	92	22.9	222	20.9
400-449	70	10.6	75	18.7	145	13.7
350-399	16	2.4	35	8.7	51	4.8

SAT - Mathematics (Continued)

	Men		Women		Total	
	N	%	N	%	N	%
300-349	7	1.1	8	2.0	15	1.4
250-299	0	0.0	1	0.2	1	0.1
	659		402		1061	

HIGH SCHOOL RANK

Class of 1969

University of Massachusetts - Boston

Top	Men		Women		Total	
	N	%	N	%	N	%
Top 1-5%	11	1.7	30	7.7	41	3.9
6-10	39	5.9	46	11.8	85	8.1
11-15	49	7.4	49	12.6	98	9.3
16-20	47	7.1	48	12.3	95	9.0
21-25	54	8.2	43	11.1	97	9.2
26-35	110	16.6	68	17.5	178	16.9
36-50	140	21.1	63	16.2	203	19.3
51-75	158	23.9	33	8.5	191	18.2
79-99	54	8.2	9	2.3	63	6.0
	662		389		1051	

MEDIANS

	SAT-Verbal	SAT-Mathematics	High School Rank
Males	506	536	37%*
Females	512	494	23%**
Total	509	520	31%***

*Median male exceeds 63% of males in Class of 1969
**Median female exceeds 77% of females in Class of 1969
***Median student exceeds 69% of students in Class of 1969

VI Other Activities

1. During the calender year 1965, the office mailed out a total of 159,518 letters.

2. In order to assist and cooperate with secondary schools in pre-college counseling, the staff of the Admissions Office visited every public secondary school in the Commonwealth. Visitations were also made to selected private and parochial secondary schools.

3. During the year, the Admissions Staff visited each of the Regional Community Colleges at least twice in order to acquaint students and staff with University policies on transfer.

4. Although, interviews are not required as part of the admissions procedure, applicants and their parents come to us in increasing numbers for information about the University and help in regard to personal problems. In order to handle the increasing numbers, the Admissions Office for the first time used group interviews. Based

on comments from parents and applicants, the group interviews system was well received.

5. Graduation, Honors and Registration lists are prepared. Deficiencies are checked.

6. Withdrawals are processed and refund of student fees authorized.

7. Pre-registrations and registrations are conducted for each semester and the several summer sessions.

8. Grades are received and checked before going to the EDP Office. Grade reports are distributed and class standing reported.

9. More and more the Admissions and Records Office is called upon to furnish detailed statistical information for academic and governmental agencies emphasizing the need for complete and accurate records. This statistical information is the permanent record of the expanding University and constitutes the basis for planning for the future.

1. ADMISSIONS

A. Admissions Data Class 1969 and Trends

1. Total Freshman Completed Applications

		Men	Women	Total
Sept.	1956	2,748	1,264	4,012
Sept.	1957	3,021	1,717	4,738
Sept.	1958	3,547	1,861	5,408
Sept.	1959	3,286	1,876	5,162
Sept.	1960	3,668	2,271	5,939
Sept.	1961	4,029	2,492	6,521
Sept.	1962	4,271	2,659	6,930
Sept.	1963	4,408	3,139	7,547
Sept.	1964	6,681	5,188	11,867
Sept.	1965	6,306	5,493	11,799

2. Freshman Students Accepted and Enrolled

		Men	Women	Total
Sept.	1956	723	425	1,148
Sept.	1957	730	536	1,266
Sept.	1958	828	538	1,366
Sept.	1959	1,135	703	1,838
Sept.	1960	1,009	716	1,725
Sept.	1961	1,229	689	1,918
Sept.	1962	1,155	767	1,922
Sept.	1963	1,287	999	2,286
Sept.	1964	1,318	1,274	2,592
Sept.	1965	1,407	1,215	2,622

*Includes transfers and former students assigned to that class.

3. New Freshmen (not including transfer, former students or those demoted).

Class	Selected		Paid		Paid and Withdrawn		Paid less those withdrawn	
	M	W	M	W	M	W	M	W
1962	1272	847	926	660	190	124	736	536
1963	1775	1236	1318	895	263	194	1055	701
1964	1728	1202	1232	895	280	189	952	706
1965	2178	1171	1444	880	298	198	1146	682
1966	2127	1318	1400	1007	304	249	1096	758
1967	2421	1757	1519	1287	318	281	1201	997
1968	2373	2132	1516	1670	395	340	1121	1330
1969	2762	2214	1822	1545	486	346	1336	1199

4. Per cent of loss based upon the number selected

Class	Men	Women
1961	40	35
1962	42	37
1963	40.6	43.3
1964	44.9	41.3
1965	47.4	41.8
1966	48.9	42.4
1967	50.4	43.2
1968	52.8	37.7

5. Summary of New Freshmen Applications.

a. Total Completed Applications 11,799

b. Total Selected from Applications 4,976 (42.1 per cent)

c. Total Matriculated of those Selected 2,622 (52.6 per cent)

6. Profile Class of 1969

a. College Board Scholastic Aptitude Test Scores.

1. Verbal

	Total		Males		Females	
	N	%	N	%	N	%
700 - up	97	3.9	34	2.6	63	5.2
650 - 699	204	8.1	93	7.1	111	9.2
600 - 649	523	20.8	235	17.9	288	23.9
550 - 599	683	27.1	343	26.1	340	28.3
500 - 549	507	20.2	263	20.0	244	20.3
450 - 499	360	14.3	237	18.1	123	10.2
400 - 449	116	4.6	86	6.5	30	2.5
350 - 399	20	0.8	16	1.2	4	0.3
300 - 349	4	0.2	4	0.3	0	0.0
250 - 299	2	0.1	2	0.2	0	0.0
TOTAL	2516		1313		1203	

2. Numerical

	Total		Males		Females	
	N	%	N	%	N	%
700 - up	168	6.7	118	9.0	50	4.2
650 - 699	411	16.3	249	19.0	162	13.5
600 - 649	608	24.2	322	24.5	286	23.8
550 - 599	600	23.8	329	25.1	271	22.5
500 - 549	467	18.6	197	15.0	270	22.4
450 - 499	199	7.9	76	5.8	123	10.2
400 - 449	52	2.1	18	1.4	34	2.8
350 - 399	9	0.4	3	0.2	6	0.5
300 - 349	2	0.1	1	0.1	1	0.1
250 - 299	0	0.0	0	0.0	0	0.0
TOTAL	2516		1313		1203	

3. Comparison Median Scores Classes of 1966, 1967, 1968 and 1969.

Verbal				Numerical			
1966	1967	1968	1969	1966	1967	1968	1969
534	542	558	567	569	571	582	593

b. High School Rank (Class of 1969)

	Total		Males		Females	
	N	%	N	%	N	%
Top 1 - 5%	490	19.4	130	9.8	360	30.0
6 - 10	481	19.0	193	14.5	288	24.0
11 - 15	388	15.3	178	13.4	210	17.5
16 - 20	329	13.0	187	14.0	142	11.8
21 - 25	247	9.8	154	11.6	93	7.8
26 - 35	281	11.1	219	16.4	62	5.2
36 - 50	194	7.7	167	12.5	27	2.3
51 - 75	92	3.6	78	5.9	14	1.2
76 - 99	30	1.2	27	2.0	3	0.3
TOTAL	2532		1333		1199	

c. Medians - Class of 1969(Specials Summer - January)

	Total	Males	Females
CEEB - Verbal	536	515	548
CEEB - Mathematics	539	554	527

B. Admissions Data Transfers September 1965 and Trends

1. Completed Applications and Trends

	Completed Applications		Accepted and Enrolled	
	Men	Women	Men	Women
Sept. 1959	518	152	99	17
Sept. 1960	499	144	77	22
Sept. 1961	677	201	172	23
Sept. 1962	784	270	173	33
Sept. 1963	854	668	195	79
Sept. 1964	1006	452	233	114
Sept. 1965	1332	704	196	87

2. Transfers Accepted

	1966	1967	1968	1969	Total
Men	0	100	79	17	196
Women	1	56	25	5	87
Total	1	156	104	22	283

C. Admissions Data Former Students September 1965 and Trends

	Men	Women
Former students who re-entered September 1958	78	8
Former students who re-entered September 1959	68	16
Former students who re-entered September 1960	83	14
Former students who re-entered September 1961	68	25
Former students who re-entered September 1962	106	32
Former students who re-entered September 1963	127	21
Former students who re-entered September 1964	205	45
Former students who re-entered September 1965	147	55

1. Admissions Data Spring Semester 1964-1965

	1965	1966	1967	1968	1969	Total
Men	6	38	74	185	27	330
Women	7	13	23	138	6	187
Total	13	51	97	323	33	517

D. Admissions Data Spring Semester 1964-65

Swing Shift Freshman	174	
New Freshman	20	
Transfers		
Class '66	5	
Class '67	24	
Class '68	19	
Class '69	5	
Former Students Returning		
Class '65	12	
Class '66	47	
Class '67	73	
Class '68	130	
Class '69	8	
Total New Students Spring Semester		517

B. UNDERGRADUATE REGISTRATION AND TRENDS

1. Undergraduate Registration September 1965

Class	1966		1967		1968		1969		Total		Total
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	
Agriculture	102	6	121	9	125	8	105	11	453	34	487
Arts and Sciences	519	347	691	496	686	768	787	766	2683	2377	5060
Business Administration	153	12	252	22	201	13	165	13	771	60	831
Education	2	129	6	185	7	208	1	157	16	679	695
Engineering	149	1	233	1	232	3	271	4	885	9	894
Home Economics	-	30	-	52	-	89	-	97	-	268	268
Nursing	-	30	-	41	-	64	-	68	-	203	203

Class	1966 Men	1966 Women	1967 Men	1967 Women	1968 Men	1968 Women	1969 Men	1969 Women	Total Men	Total Women	Total
Physical Education	39	23	54	30	40	43	67	71	200	167	367
Public Health	13	16	7	21	5	22	1	24	26	83	109
No Major	1	-	2	2	2	-	10	4	15	6	21
Total	978	594	1366	859	1298	1218	1407	1215	5049	3886	3886
Total by Classes	1572		2225		2516		2622		8935		
Non-Classified									17	60	77
Specials									28	63	91
Total											9103

2. Undergraduate Residence September 1965

Massachusetts	8327
Other States	589
Foreign	19
Total	8935

3. Enrollment Trends - Total Undergraduates

Year	Men	Women	Total
1951	1934	1021	2955
1952	2032	1164	3196
1953	2267	1220	3487
1954	2479	1224	3703
1955	2459	1169	3628
1956	2581	1212	3793
1957	2650	1341	3991
1958	2772	1495	4267
1959	3090	1765	4855
1960	3257	2000	5257
1961	3549	2135	5684
1962	3759	2381	6140
1963	4125	2757	6882
1964	4617	3360	7977
1965	5049	3886	8935

4. Enrollment Trends - Freshman Men and Women

Class	Men	Women	Total
1955	639	406	1045
1956	669	407	1076
1957	754	416	1170
1958	810	372	1182
1959	698	390	1088
1960	723	425	1148
1961	730	536	1266
1962	828	538	1366
1963	1135	703	1838
1964	1009	716	1725
1965	1229	689	1918
1966	1155	767	1922
1967	1287	999	2286
1968	1318	1274	2592
1969	1407	1215	2622

5. Enrollment Trends - Freshman Enrollment by Schools

Class	Arts & Science	Engin.	Ed.	Bus. Adm.	Agric.	Home Econ.	Phys. Ed.	Nursing	Public Health
1956	522	213		115	99	102	25		
1957	577	277		146	83	64	23		
1958	543	314		148	98	55	24		
1959	519	295		93	86	52	20	23	
1960	588	309		107	61	40	18	25	
1961	607	309	90	116	55	45	23	21	
1962	694	300	80	125	69	35	38	25	
1963	987	321	127	173	92	37	63	39	
1964	972	317	117	115	80	25	62	37	
1965	1164	298	102	135	86	26	71	36	
1966	1168	268	116	133	93	37	65	42	
1967	1468	277	127	140	92	65	51	51	
1968	1656	303	167	132	86	72	75	69	32
1969	1553	275	158	178	116	97	138	68	25

6. Undergraduate Registration - Spring Semester 1964-65

Class	Men	Women	Total
1965	790	532	1322
1966	1079	617	1696
1967	1182	858	2040
1968	1365	1336	2701
1969	27	6	33
Total	4443	3349	7792
Specials	39	117	156

7. Summer School 1965

A. Session Enrollment

Session Number	Individual Students	
	Short Sessions	Main Sessions
1	90	
2		1696
3	16	
4	47	
6	2	
7	1	
8		1463
9	29	
10	32	
	217	3159

B. Student Attendance

University of Massachusetts Students	
1965	145
1966	432
1967	407
1968	263
1969	362
N.C.	12
Sp.	14
Students from other colleges	612
Total	2247

8. Distribution of Undergraduate Enrollment by Majors - September 1965

College of Arts & Sciences

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Astron	2		1		4		5	4	12	4	16
Micbio	3	5	4	1	7	4	13	5	27	15	42
Botany	2	2	6	5	6	2	7	3	21	12	33
Chem	27	3	19	9	42	7	66	39	154	58	212
Econ	35	1	40	5	24	4	19		118	10	128
Engl	60	88	80	161	70	168	61	139	271	556	827
Journ	2	2	4	9	16	20	16	25	38	56	94
Geol	8		8		12	1	11	1	39	2	41
Art	9	22	9	18	5	30	2	18	25	88	113
German	4	7	9	11	7	17	3	10	23	45	68
Hist	75	40	110	52	87	64	97	54	369	210	579
Govt	109	33	129	38	99	44	94	38	431	153	584
Math	33	30	59	35	70	80	128	114	290	259	549
Music	2		3	2	4	5	10	8	19	15	34
Phil	6	3	10	2	8	4	9	1	33	10	43
Physic	15		13	1	11	4	21	7	60	12	72
Psych	34	24	52	32	46	67	51	78	183	201	384
Clsics							1	1	1	1	2
French	6	12	4	25	5	52	13	76	28	165	193
Span	2	13	3	9	7	18	5	12	17	52	69
Russ	5	1	4	2	1	8	3	7	13	18	31
Latin				1		2	2	5	2	8	10
Sociol	15	23	21	29	7	67	12	42	55	161	216
Anth	1	2	2	5	2	5	2	4	7	16	23
Speech	11	17	10	18	9	25	2	13	32	73	105
Zool	21	15	33	15	34	41	129	61	217	132	349
PreMed	20	3	33	10	62	21	4	1	119	35	154
PreDnt	11		21		33		1		66		66
PreVet	1	1	4	1	8	8			13	10	23
TOTAL	519	347	691	496	686	768	787	766	2683	2377	5060

College of Agriculture

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
C Agr					1		7		8		8
A&F Ec	4		4		4		2		14		14
FD Dist					1				1		1
Ag Eng					2		1		3		3
PL Soil	4	1	9	2	5		3	2	21	5	26
Dairy	1								1		1
An Sci	14	3	6	1	9	1	9	5	38	10	47
Ent	6		1		3		2	1	12	1	13
FD Sci	11	1	10	2	5	2	1	1	27	6	33
Htl Mgt	9		22	1	17	1	8		56	2	58
Forest	11		20	1	25	2	30		86	3	89
Wildlf	19		20		23		28	1	90	1	91
Fish	2				3		1		6		6
LD Arc	21	1	27	2	21	1	13	1	82	5	87
Ld Arc					1				1		1
Pk Adm			1		2				3		3
PreVet			1		3	1			4	1	5
TOTAL	102	6	121	9	125	8	105	11	453	34	486

School of Business Administration

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
S BA	2		26		175	12	141	8	344	20	364
Gen Bus	6	1	34	2	3				43	3	46
Acctg	48	6	74	10	11		13	3	146	19	165
GB Fin	21	1	10		1				32	1	33
Mgt	47	2	73	4	6	1	8		134	7	141
Mktg	29	2	35	6	5		3	2	72	10	82
TOTAL	153	12	252	22	201	13	165	13	771	60	831

School of Education

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Educ	2	129	6	185	7	208	1	157	16	679	695

School of Engineering

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Engin	2		12		36		232	3	282	3	285
CH E	16	1	25		34	1	9	1	84	3	87
C E	42		57		40		8		147		147
E E	42		59	1	54	2	9		164	3	167
I E	10		20		17		1		48		48
M E	37		60		51		12		160		160
TOTAL	149	1	233	1	232	3	271	4	885	9	894

School of Home Economics

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
H Ec		30		52		89		97		268	268

School of Nursing

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Nurse		30		41		64		68		203	203

School of Physical Education

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Men PE	36		48		40		66		190		190
Wo PE		17		21		40		67		145	145
Rec	3	6	6	9		3	1	4	10	22	32
TOTAL	39	23	54	30	40	43	67	71	200	167	367

Department of Public Health

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
Pub Hl	12	5	6	3	2			1	20	9	29
Med Tec	1	11	1	18	3	22	1	23	6	74	80
TOTAL	13	16	7	21	5	22	1	24	26	83	109

No Major

Curriculum	1966		1967		1968		1969		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	
No Major	1		2	2	2		10	4	15	6	21

9. Registration on Interchange of Students Programs, Amherst, Mount Holyoke, Smith, and University of Massachusetts cooperating.

a) Spring Semester 1964-65

From	Course	Number of Students
Amherst to University	Anthropology 60	1
	Art 14	1
	Art 33	1
	Art 58	1
	Art 79	1
	C E 35	1
	Chinese 8	1
	Economics 82	2
	English 54	1
	English 92	1
	Government 96	1
	Physics 213	1
	Portuguese 8	1
	Spanish 28	1
	Spanish 82	1
Mt. Holyoke to University	Anthropology 67	1
	Anthropology 74	1
	Anthropology 79	1
	Archaeology 60	1
	Art 65	1
	Botany 217	1
	Chinese 8	2
	Government 57	1
	History of Science 298	2
	Mathematics 57	1
	Psychology 92	4
	Psychology 208	1
	Sociology 156	1
Smith to University	Art 79	1
	Chinese 8	1
	Chinese 12	2
	Geology 74	1
	Mathematics 69	1
	Philosophy 64	1
	Philosophy 72	1
	Philosophy 258	2
	Sociology 70	1
	Statistics 92	2
	Zoology 80	1

From	Course	Number of Students
University to Amherst	Art 49S	1
	Dramatic Arts 23S	1
	Economics 66	1
	French 27S	1
	Greek 1S	1
	History 22	1
	Latin 80	1
	Religion 24	2
	Religion 44	2
University to Mt. Holyoke	English 245S	1
	Geography 213S	2
	Geography 315S	2
	History 298S	1
	Latin 316S	1
	Latin Ind.Res.	1
	Russian 302	1
University to Smith	Art 316b	1
	English 415b	1
	History 314b	1
	Latin 14b	1
	Philosophy 312b	1
	Religion 31b	1
	Sociology 39b	2
Amherst to University	Accounting 125	4
	Anthropology 368	2
	Anthropology 376	2
	Art 230	1
	English 116	1
	English 201	1
	English 264	2
	English 345	1
	German 101	1
	History 300	1
	History 302	1
	Math 341	1
	Math 725	2
	Math 881	1
	Physics 701	1
	Physics 711	2
	Psychology 215	1
	Psychology 385	1
	Russian 251	2
	Russian 253	1
	Russian 271	1
	Sociology 101	1
	Social Science 260	1
	Zoology 221	1

From	Course	Number of Students
Mt. Holyoke to University	Anthropology 368	1
	Anthropology 373	1
	Ch. E. 125	1
	Computer Science 551	1
	Economics 251	1
	Government 391	1
	History 303	1
	Japanese 101	1
	Mathematics 257	2
	Philosophy 340	1
Smith to University	Art 100	1
	Chinese 107	1
	German 259	1
	Japanese 101	1
	Mathematics 771	1
	Philosophy 313	2
University to Amherst	Greek 3	1
	History 67	1
	Latin 5	3
University to Mt. Holyoke	Economics 315f	1
University to Smith	Art 36A	1
	Art 49A	1
	French 410A	1
	Italian 37A	1
	Latin 14A	1
	Latin 23A	1
	Latin 26	1
	Latin 36A	1
	Philosophy 35A	1
	Philosophy 311A	1
	Psychology 30A	1
	Psychology 42A	1
	Religion 29	1
	Religion 35A	1

C. RECORDS

1. Withdrawals

a. Academic Dismissals - college year 1964-65
Scholastic Dismissals January 1965. Includes those dismissed but reinstated.

Class	Men	Women	Total
1965	9	3	12
1966	37	10	47
1967	75	19	94
1968	79	22	101
	200	54	254

Scholastic Dismissals June 1965. Includes those dismissed but reinstated.

Class	Men	Women	Total
1965	5	2	7
1966	14	4	18
1967	74	15	89
1968	156	81	237
1969	2	0	2
	251	102	353

b. Trend in academic dismissals for freshman year.

Class	Number of dismissals in freshman year	Total enrollment Sept. of freshman year	Rate of dismissals in per cent
1957	103	1170	8.8
1958	172	1182	14.5
1959	129	1088	11.8
1960	144	1148	12.5
1961	167	1266	13.2
1962	166	1366	12.15
1963	270	1838	14.7
1964	315	1725	18.3
1965	406	1918	21.1
1966	312	1922	16.2
1967	297	2286	12.9
1968	338	2592	13.0

c. Scholastic Probation 1964-65

Class	Male	Female	Total
1965	8	2	10
1966	7	4	11
1967	29	15	44
1968	158	77	235
Total	202	98	300

In some cases other failures were reinstated without probation by the Board of Admissions and Records.

d. Summary of Withdrawals - College year 1964-65

1. Withdrawals during Fall semester.

Reasons	1965		1966		1967		1968		Total
	M	F	M	F	M	F	M	F	
Difficulty with studies	-	1	1	2	2	2	4	4	16
Financial	0	1	4	-	2	-	3	1	11
Transfer	-	-	-	1	-	2	-	4	7
Discipline	-	-	-	2	1	-	-	-	3
Personal	7	7	17	5	26	8	27	18	115
Military Enlistment	1	-	-	-	1	-	2	-	4
Health	4	2	7	1	14	4	11	5	48
Reasons Unknown	1	-	-	-	-	-	-	-	1
Marriage	-	-	-	1	-	4	-	1	6
Totals	13	11	29	12	46	20	47	33	211

2. Withdrawals between the fall and spring semesters

Reasons	1965		1966		1967		1968		Total
	M	F	M	F	M	F	M	F	
Scholastic dismissal	9	3	37	10	75	19	79	22	254
Difficulty with studies	0	1	0	2	3	7	0	0	13
Financial	0	0	2	2	10	0	0	0	14
Transfer	0	1	0	2	3	7	0	0	13
Discipline	0	0	1	0	0	2	0	0	3
Personal	0	5	5	3	5	6	1	0	25
Military	0	0	1	0	0	0	0	0	1
Health	0	0	1	0	0	1	0	0	2
Reason unknown	10	6	14	4	24	6	3	2	69
Marriage	0	1	0	2	0	1	0	0	4
Totals	19	17	61	25	120	49	83	24	398

3. Withdrawals during spring semester

Reasons	1965		1966		1967		1968		1969		Specials		Total
	M	F	M	F	M	F	M	F	M	F	M	F	
Difficulty with studies	0	0	0	1	1	1	1	3	0	0	0	0	7
Financial	1	0	0	0		0	1	0	0	0	0	0	2
Transfer	0	0	0	0		0	0	3	0	0	0	0	3
Discipline	3	2	2	0		0	6	0	0	0	0	0	13
Personal	7	2	14	2	14	5	25	8	0	0	2	5	84
Military Enlistment	0	0	1	0	1	0	2	0	0	0	0	0	4
Health	1	1	1	4	4	2	6	8	0	0	0	2	29
Marriage	0	1	0	0	0	0	0	3	0	0	0	0	4
Reason unknown	0	0	0	0	0	1	0	0	0	0	0	0	1
Totals	12	6	18	7	20	9	41	25	0	0	2	7	147

4. Withdrawals between end of spring semester and September 1965

Reasons	1965		1966		1967		1968		1969		Total
	M	F	M	F	M	F	M	F	M	F	
Scholastic deficiency	5	2	14	4	74	15	156	81	2	0	353
Difficulty with studies	0	0	1	1	6	1	2	2	0	0	13
Financial	0	0	2	2	1	2	2	2	0	0	11
Discipline	0	0	0	0	0	1	0	2	0	0	3
Transfer	0	0	2	4	7	9	9	10	0	0	41
Personal	0	0	27	13	42	42	42	30	0	0	196
Military Enlistment	0	0	0	0	3	0	3	0	0	0	6
Health	0	0	0	0	1	2	1	0	0	0	4
Reason unknown	0	0	7	18	21	26	12	26	0	0	110
Marriage	0	0	0	1	1	2	0	0	0	0	4
Totals	5	2	53	43	156	100	227	153	2	0	741

2. Class and University yearly grade point averages 1964-65

Class of 1965	Number of Students	Average of Averages
Men	1645	2.519
Women	1095	2.741
Class	2740	2.608
Class of 1966		
Men	2115	2.326
Women	1254	2.445
Class	3369	2.370
Class of 1967		
Men	2558	2.091
Women	1761	2.327
Class	4319	2.187
Class of 1968		
Men	2646	1.976
Women	2587	2.203
Class	5233	2.088
Class of 1969		
Men	28	1.817
Women	6	2.300
Class	34	1.902

Total	Number of Students	Average of Averages
Men	8992	2.190
Women	6703	2.369
University	15695	2.266

3. Bachelors Degrees awarded 1965. Students who received degrees in calendar year 1965 graduated as of the Class of 1965.

School	February	June	September	Total
Arts and Science				
B.A.	42	474	103	619
B.S.	11	123	18	152
Agriculture				
B.S.	8	57	10	75
B.V.A.		2		2
Business Administration				
B.B.A.	15	84	16	115
Engineering				
B.S. Ch. E.	1	16	1	18
B.S. C.E.	5	22	4	31
B.S. E.E.	4	38	2	44
B.S. M.E.	5	31	2	38
B.S. I.E.	3	10	2	15
Education				
B.A.	4	117	5	126
Home Economics				
B.A.	0	27	3	30
Nursing				
B.S.	0	28		28
Physical Education				
B.S.	7	44	6	57
Dept. Public Health	1	15	4	20
Grand Total	110	1088	176	1374

4. Transcripts of Records Issued July 1, 1964 to June 30, 1965

a. Undergraduates

Free Transcripts	5575
Paid Transcripts	11888
Defective matrix	35
Defective copy	49
Transcripts for other offices	1978
Total	19525

b. Graduate School

Free Transcripts	1618
Paid Transcripts	1343
Defective matrix	69
Defective copy	74
Transcripts for other offices	286
Total	3296

c. Total transcripts done by Registrar's Office 22,821

UNIVERSITY OF MASSACHUSETTS
Amherst, Massachusetts

OFFICE OF THE DEAN OF MEN

ANNUAL REPORT

July 1, 1965 - June 30, 1966

1. Appropriations

As the Dean of Men's Office functions under an allotment made from the appropriations to Student Personnel, only such allotments pertaining to the Dean of Men's Office are listed as follows:

1963 - 1964

03 Account

$27,516.00	$23,291.00 (Residence hall counselors and faculty residents plus counselors for the summer school period)
	2,600.00 (Residence hall office duty)
	1,200.00 (Assistant Dean of Men's Office)
	425.00 (Dean of Men's Office)
	$27,516.00

1964 - 1965

03 Account

$41,335.00	$32,670.00 (Residence hall counselors and faculty residents plus counselors for the summer school period)
	6,040.00 (Residence hall office duty)
	2,200.00 (Assistant Dean of Men's Office)
	425.00 (Dean of Men's Office)
	$41,335.00

1965 - 1966

04 Account

$41,365.00	$35,665.00 (Residence hall counselors and faculty residents plus counselors for the summer school period)
	3,800.00 (Residence hall office duty)
	1,900.00 (Dean of Men's Office including Graduate Assistant for Fraternity Affairs)
	$41,365.00

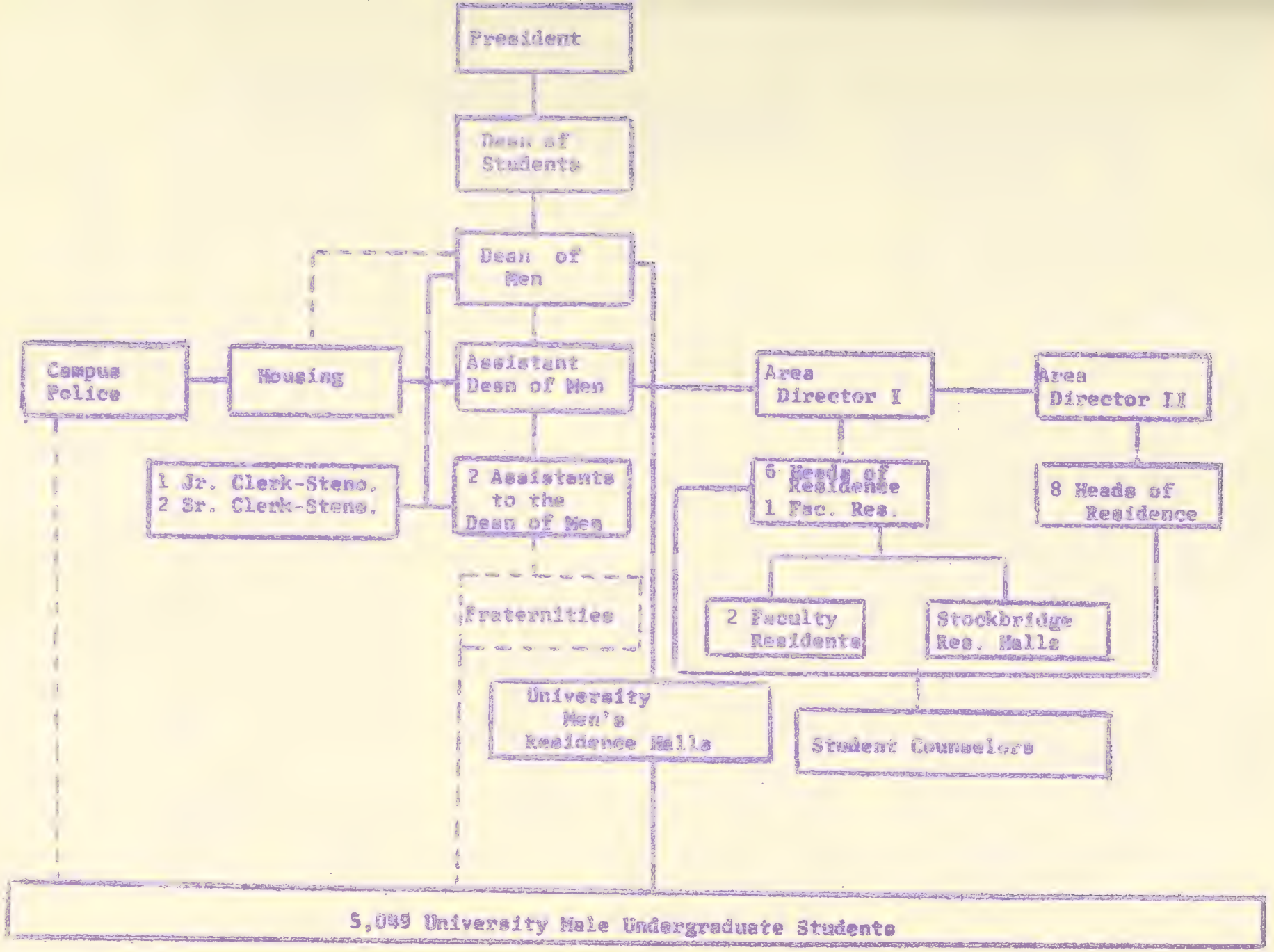
Accounts	1963-1964	1964-1965	1965-1966
10	$ 300.00	$ 300.00	$ 385.00
11	$ 100.00	$ 150.00	$ 200.00
12	$ 85.00	$ 190.00	$ 180.00
13	$ 175.00	$ 150.00	$ 750.00
14	$ 850.00	$ 900.00	$1,000.00
15	to be assigned	$ 600.00	$ 40.00

2. Personnel - Number in Each Rank

September, 1963	September, 1964	September, 1965
1 Dean of Men	1 Dean of Men	1 Dean of Men
1 Assistant Dean of Men	1 Assistant Dean of Men	1 Assistant Dean of Men
1 Staff Assistant	2 Staff Assistants	2 Staff Assistants
12 Heads of Residence	15 Heads of Residence	16 Heads of Residence
2 Junior Clerks and Stenographers	1 Senior Clerk and Stenographer	2 Senior Clerks and Stenographers
	1 Junior Clerk and Stenographer	1 Junior Clerk and Stenographer

3. Organizational Chart

SEE NEXT PAGE.


President
Dean of Students
Dean of Men
Campus Police
Housing
Assistant Dean of Men
Area Director I
Area Director II
1 Jr. Clerk-Steno.
2 Sr. Clerk-Steno.
2 Assistants to the Dean of Men
6 Heads of Residence
1 Fac. Res.
8 Heads of Residence
Fraternities
2 Faculty Residents
Stockbridge Res. Halls
University Men's Residence Halls
Student Counselors
5,049 University Male Undergraduate Students

4. Students or Clientele Served

The entire male undergraduate student body is served by the Office of the Dean of Men.

a. On a regularly scheduled basis, the Dean of Men sees on the average of ten or a dozen students a day. There are many individuals who drop in for a brief visit, and it is estimated that this would put the average possibly as high as twenty to twenty-five contacts on an average day with members of the student body. The discussions which are held with students range all the way from serious and very private personal problems which they wish to air with the Dean to a simple matter of going over one's budget in preparation for authorizing a small loan or short-term credit at the University Store. Seldom are conferences held without several interruptions from the telephone; although on the more serious and extensive conferences, it has been the practice that all but emergency calls be held so as not to interfere with the rapport which has been established between the client and the Dean.

In addition, the Dean visits living groups with some regularity and talks with individual students in their rooms or as an invited guest at parties, banquets, and dances. In this capacity, he serves as one who enjoys tremendously being with students in a social situation. Both the Dean and Mrs. Hopkins feel that one of their obligations is to attend as many student functions as possible. There is a limit to their endurance, however; and occasionally, they have to decline on the basis of prior commitments or even have to set aside a couple of days when they will not accept invitations. These are few and far between, and they most completely enjoy the cordiality of their relationship with students in this matter.

b. The Assistants to the Dean of Men assist at the Dean of Men's Office with its heat of routine and emergency matters. They meet daily with from four to five to as many as twenty or twenty-five students on an individual and small group basis. Regular meetings are held with student leaders, judiciary personnel, fraternity leaders, etc.

c. The function of the Area Director is to insure the smooth and efficient operation of the residence halls within a certain geographical location. Direct contact with the students is made by referral from the house counselors and the heads of residence. Area Directors are concerned with the social, academic, and disciplinary problems of the students who live within their respective geographical location. In the course of the year, the Area Director works with about 15 per cent of the students in his area. More important, the Area Directors, in conjunction with the heads of residence and the counselors, strive to create conditions within the residence halls which would advance the social and educational goals of the students.

5. Faculty publications, research grants, research projects, and other professional activities.

No information regarding above for the year 1965-1966.

6. Major Accomplishments of the Unit

a. FRATERNITY AFFAIRS - During the 1965-1966 school year, there were three major accomplishments of this office with regard to fraternity affairs. The first major accomplishment was the articulation of a preliminary statement of fraternity goals and standards (See Appendix I). Secondly, there was the formation of a fraternity faculty adviser's interfraternity council. The third significant accomplishment during this year has been the appointment of a Graduate Assistant for Fraternity Affairs.

b. RESIDENTIAL AFFAIRS - During the 1965-1966 school year, the Dean of Men's Office was very active with regard to changes and revisions in existent residence hall policies. The first area of concern was a revision in the record keeping policy. During the year, we abolished counselor evaluation forms. Prior to this year, all counselors in residence halls were required to fill out one of these forms for each student living in his area. Secondly, we have revised the recommendation procedures with regard to the annual influx of these requests for recommendations on students whom none of us in the office have any contact or knowledge.

We have further achieved a review and rewriting of residence hall regulations and operational standards. In the course of this, we have established a standard procedure for the review of residence disciplinary dismissals. We have further established a new search and seizure policy regarding counselors and heads of residence. Members of this office have also participated in the origination of the search and codification of all University residence regulations for health and environmental safety. We have further established the University Interdormitory Forum which combines the now defunct men's and women's interdormitory forums. We have also achieved a major accomplishment with regard to the establishment of a graduate assistant's program for residence supervision in the Southwest Residential Complex.

Further revisions with regard to residence halls are involved in counselor selection. This year for the first time there was an attempt to provide a standard interview and rating for all applicants for counselor positions. As a result, this office interviewed a total of 308 students and rated them all on a new rating form. As a result of this, we hired 38 counselors and compiled a reserve list of 25 names to be used by heads of residence during the coming academic year to meet their needs for new counselors. Measures were also taken to improve communication channels between the residence halls and the Dean of Men's Office. Toward this objective, each member of the Dean of Men's Office has met on numerous occasions with students, counselors, and heads of residence with regard to the philosophy of the Dean of Men's Office and how this might best be implemented and to attempt to discover the needs and expectations of the students in residence with regard to the Dean of Men's Office.

7. Special Projects or Programs operated by the unit during the period covered.

a. FRATERNITY AFFAIRS - During the course of the school year, this office was involved in the planning and organization of a Greek Residential Park and, toward this objective, was also involved the formation of a corporation to conduct the affairs of this Greek Residential Park.

b. RESIDENTIAL AFFAIRS - The Dean of Men's Office conducted during this year an in-service training program for heads of residence in cooperation with the Department of Guidance and Counseling. This office also initiated a pilot opinion poll which was a sample of students' perceptions of residence hall organization and operations. This was highly significant for it gave us a first-hand insight into students' feelings and perceptions of the administrative aspects of the residence halls.

The establishment of a rating form to be used for counselor selection was also a significant accomplishment or special project during the 1965-1966 school year. To accomplish this objective, information was drawn from several universities on their counselor selection rating forms. This information was then compiled into a rating form for use at the University of Massachusetts. The form evaluated counselors in three areas: (1) scholastic behavior, (2) personal behavior, (3) their analysis of the counseling position. Potential counselors were rated into sub-categories of three areas on a 7-point scale, -3 to +3 using 0 as a potential mean. The results indicated a mean for the three categories of .4. The cutting line for selection of counselors by this procedure was 2.0.

Also during this year, a major attempt was made to revise the existing counselor handbook. The major reasons for desiring this revision were the facts that no changes had been made in the handbook since 1962, although many significant changes had occurred at the University since that period of time. To accomplish the objectives, several meetings were held with present counselors to determine their express needs and desires in terms of their relationships with the Dean of Men's Office. These needs and desires were then discussed in relation to a residence hall counseling program and the result was a fourteen-page statement of counselor responsibilities, standards, etc., and what the Dean of Men's Office expected and would give in return. The end product of the total comprehensive handbook is expected to be finished in time for distribution when the counselors return in the fall.

8. Future plans and needs.

a. The third category and perhaps the most significant category in this report due to the fact that we are just starting to make in-roads toward our philosophy implementation is the needs of this office. The needs regarding fraternity affairs are three:

The first thing that is needed regarding fraternities is a clearly-stated formalized document outlining the goals and standards by which fraternities can be evaluated. We also need an establishment by the highest possible level of a University of Massachusetts Fraternity Affairs Board. This would be a fraternity governing board. Thirdly, we need the appointment, in addition to the graduate assistants, of a full-time professional student personnel worker to concern himself solely with fraternity affairs.

b. In conjunction with our future plans and needs regarding residence halls, we plan to establish two complete field offices of the Dean of Men. These offices would be housed in Greenough House and the Southwest Complex. Each unit is to be provided with furnishings for one full-time professional staff member, secretarial equipment, files, typewriter, etc., and sufficient office space for two or three area directors in addition to the secretarial help and the full-time professional staff member. The office base for these locations should be sufficient to serve from 2,000 to 3,000 male students. Each of these offices would function so as to serve all of the extra-class needs of the male students of that area. Coordination for the services to be provided by these area offices would emanate from the central office of the Dean of Men.

We would also like to see the establishment of a full-time professional position under the Dean of Students to be called Coordinator of University Police, Health, and Safety. The duties of this particular individual would include (1) liaison for town, state, and federal law enforcement agencies, (2) training and orientation for all non campus security officers, (3) traffic registration and control, (4) referral agent for all matters of student involvement in police matters. We would want a separate office location for and a staff necessary for such responsibilities, perhaps as part of the University Police Department.

We would also like to have redefined the position of area director to that of a coordinator of residence hall programs, counseling, and student government. Disciplinary cases would move from house judiciary to area Dean to area judiciary as a regular practice further, we must redefine the role of heads of residence and counselors so as to make them in advisory capacity only. Residence hall conduct, both disciplinary establishment and enforcement, must become the duty of the house student government. Further, we must continue to expand the program of in-service training of both heads of residence and counselors. We would also like to establish, in conjunction with the School of Education, a program of graduate training in student personnel services in higher education.

The preceding has been an attempt to place in sentence form the outlines for the Annual Report of the Dean of Men's Office for the academic year, 1965-1966.

Robert S. Hopkins, Jr.
Dean of Men

A N N U A L R E P O R T

A P P E N D I X I

(Preliminary Statement on Fraternity Goals)

University of Massachusetts
Amherst, Massachusetts

OFFICE OF THE DEAN OF MEN

March 8, 1961

To All Fraternity Men at the University of Massachusetts:

Preliminary Statement on Fraternity Goals

Fraternities are housing and dining facilities for University of Massachusetts students. Their charters are granted and continuously recognized at the discretion of the University. Fraternities can provide unique and priceless educational experiences and benefits to participating members. However, at present, University of Massachusetts fraternities have critical needs in the following areas: new housing and dining facilities, additional chapters, means for providing continuity in programs and traditions, and upon the construction of a Greek residential Park, there will exist the need of meeting a multi-million dollar obligation to pay for the Park.

At present, clear and efficient methods for meeting the above needs are not present within the current fraternity system to a sufficient degree, and they are not now the object of organized and manned programs within all chapters or within the Interfraternity Council. In fact, in many areas of fraternity system organization and daily fraternity life, the University of Massachusetts fraternity system is many years behind fulfilling all its obligations and remaining current with the latest practices and policies of the best fraternity systems in the country.

It is the intention of the University of Massachusetts, if it is to have fraternities associated with it (and it is now committed to this), to have the very best fraternities possible so that [illegible] student will be a better person for having been a member thereof. Therefore, the University of Massachusetts hereby clearly states its intention of challenging the fraternity system in the areas that are described below.

All fraternity men will be challenged to expand their present boundaries of commitment and action to your personality, to strengthen the effort to achieve [illegible] greater degrees of excellence in all areas of living. The pressure will be on. Standards will be high—and higher than for others. Demands will be made. Clear, mutually understood goals will be established by the University and by the fraternity system, and the University will, if necessary, aid in finding ways to achieve them, because they must be achieved. It is expected that everyone will come to view our fraternities with pride, believe most wholeheartedly will, by necessity and by desire, become a symbol of the successful attainment of maturity, accomplishment, and of belonging to a company of gentlemen.

Accordingly, the following articles describe the expectations that the University entertains for its fraternities. For the purpose of official dialogue between the University and the fraternity system collectively, the University will hold the Fraternity Presidents' Assembly responsible for providing immediate and continuing action and leadership in order to meet the demands of (1) the University administration, (2) of the times, and (3) of the future.

Fraternity membership must be relevant to the overall objectives of the University. Fraternity organization must reflect the constantly changing demands made upon it by a society and educational system which are themselves rapidly evolving in many ways. The fraternity experience must provide a laboratory and a training ground in responsible citizenship, social amenities, diplomacy, democracy, leadership, and commitment to high ideals. Fraternity goals, if they are to be relevant and of benefit to the individual and the University, must be aimed at making the individual better prepared to meeting the demands of his future as a leader in the business, educational, professional, civic communities. They are not to be merely havens of refuge from the rest of the community. Their essential autonomy is not to be placed in jeopardy by outside forces. But, more awareness of and accountability to outside forces is to be expected.

I. Adviser(s)

Each chapter is to have active, interested advisers from the faculty, the alumni of the fraternity, the administration, or a native, dedicated, sincere member of the community at large. Advisers provide continuity to the active members in tradition, program, policy, and standards. They lend their greater perspective to local, immediate internal issues. They provide an inspiration for maintaining quality in the management of fraternity affairs. (They do not actually manage fraternity affairs.) They maintain a positive and supporting relationship to the housemother and to the alumni. They are aware of unusual needs of individual members and lend assistance where they can in meeting these needs or arranging for them to be met. They maintain close relations with other fraternity advisers, the Fraternity Manager, and the University administration.

The chapter must lend active support to its advisers. It must familiarize them with its problems and its hopes. It must insure that all members become personally acquainted with the advisers and are aware of their functions, their duties, and their problems. The chapter should allow the advisers to participate in the life of the chapter by such means by having the advisers attend regular luncheons or dinners, house meetings, executive committee meetings, alumni meetings, social events, etc.

This policy is effective immediately. If, by October 1, 1966, a chapter is in default of this policy, the University will suspend recognition of the chapter until such time as the policy's requirements are met.

II. Alumni/House Corporation

Each chapter will have an active and duly incorporated alumni/house corporation. This corporation owns the existing property of the chapter. It fulfills, at the very least, the responsibilities of a landlord for maintaining and continually improving the standard of its dwelling. It provides continuity to the active membership. It maintains positive active associations with the chapter advisers, housemother, alumni corporations of other fraternities, and the University administration. It provides, annually, a written report of the state of the chapter to the Office of the Dean of Men on or before June 15 of each year. This report includes such items as: condition of the physical property including grounds, equipment, sleeping quarters, food service, social rooms, plans for the future of the property and the chapter (including for those fraternities now living in "sub-standard dwellings") a clear statement of plans to obtain suitable living and dining facilities. Members of this corporation personally inspect the chapter periodically each semester. A current list of active corporation members (including those to contact in an emergency) is to be kept filed with the Dean of Men.

This policy is effective immediately. If, by October 1, 1946, a chapter is in default of this policy, the University will suspend recognition of its charter until such time as the policy's requirements are met.

III. Housemothers

The general and specific policy about housemothers is to be formulated and submitted to this office by the Fraternity Presidents' Assembly and the Advisers' Association. Please include such items as qualifications, selection procedure, purposes, and duties.

IV. Adviser/Alumni IFC

An Adviser/Alumni IFC will be organized and initiated by the Fraternity Presidents' Assembly on or before June 1, 1946. (Information about this kind of organization is available at the Office of the Fraternity Manager.) A written constitution should be formulated which includes purposes, duties, officer selections, meetings, etc.

V. Standards

This office charges the Fraternity Presidents' Association to formulate and publish clearly-stated standards for measuring areas listed below which will apply throughout the entire fraternity system. Included should be clear, workable methods to insure that these standards are met.

HOUSING AND GROUNDS INCLUDING MAINTENANCE DETAILS, SUBSTITUTING, AND SAFETY.

FOOD SERVICE.

SOCIAL EVENTS.

PERSONAL CONDUCT IN FRATERNITIES AND ON CAMPUS.

COMMITMENT TO NORMAL FRATERNITY IDEALS.

INTERNAL DISCIPLINE.

It is expected that these standards will be published and submitted to the Dean of Men's Office by June 1, 1966. In addition to the above standards, the University hereby states standards for the areas of Financial Health and Scholastic Achievement.

Financial Health - A financial statement will be filed with the Office of the Dean of Men within ten days after the close of each semester. This is to be submitted on a form to be supplied by the Dean of Men and to be signed by the president and treasurer of each fraternity.

Scholastic Achievement - Effective September, 1966, each chapter will be expected to maintain the following scholastic average as indicated below. Failure of a chapter to maintain the required average twice consecutively will result in social probation--at the least--until such time as the chapter regains the minimum required scholastic average.

Required Average: For Academic Year, 1966-1967 - 2.0
For Academic Year, 1967-1968 - 2.1
For Academic Year, 1968-1969 - 2.2
For Academic Year, 1969-1970 and thereafter - 2.2

William W. Burnard
William W. Burnard
Assistant Dean of Men

A N N U A L R E P O R T

A P P E N D I X II

(Individual Residence Hall Reports)

Baker House, 1965-1966

During the academic year, Baker House was occupied by an average of 350 students composed of all classes and various majors.

An effective intramural program was instituted in the fall and continued throughout the year. The various sports in which there was participation were football, basketball, soccer, cross-country track, and bowling. A good degree of success was achieved with honors of first place in the dormitory football playoffs and several second places in other sports. A table tennis tournament was held in the house in the spring. The equipment and management of the event was entirely student sponsored and was a complete success, providing new equipment for the dormitory and an enthusiasm which will continue into following years.

Three dances were held in the formal lounge of Baker, all of which were limited to Baker residents and their guests. Refreshments and a band were featured at these functions. Folk music and refreshments were given after the first four home football games and were enthusiastically received. Several members of the dormitory volunteered their talents to provide live folk music.

In conjunction with Homecoming and Christmas, an open house was held with a great deal of success. The students were enthusiastic and conducted themselves with decorum and responsibility. A lecture was presented along with a movie on Vietnam by the ROTC Department and was attended by nearly 50 students and lasted more than an hour over the scheduled time.

On the whole, the residence hall showed a good deal of "esprit de corps" and it is expected to continue into the coming year due to many of the past residents planning to return in the fall of 1966.

M. Lillian Hunter
Head of Residence

Brett House, 1965-1966

The year 1965-1966 began with 262 men registered of whom 164 were freshmen. At the half, 246 were registered. This number included twenty-five swing-shift freshmen. The difference in enrollment was dropouts, flunks, transfers to other residence halls, and fraternities.

In November, Mr. Lambert was a guest speaker; in December, we had Mr. Della Grotte; in March, Rabbi Kaplan of Holyoke; in April, a representative of Mr. Fusia's staff showed football films. On September 25, Brett, together with Brooks, Mills, and Wheeler gave a dance at the Newman Club, with a band, to the Southwest Complex as a gesture of welcome. Six other dances were held during the two semesters. A grinder supper was held in October and a picnic in May. Open house was held for girls, January 8, February 19, and April 30. At all of these functions, refreshments were served.

I would like to see rooms 129, 231, and 331 converted to utility rooms, each containing one ironing board, and a desk to be used for typing (with chair). We need a kitchenette in Brett. I would recommend dividing the canteen with some sort of wall--half to be used as a canteen and the other half as a kitchenette.

Frances L. Nutter
Head of Residence

Butterfield House, 1965-1966

Butterfield is a resident house for male undergraduate students with 85 resident rooms; there were 149 students assigned to Butterfield. The students are being prepared for later professional status by daily class assignments and projects. Their progress is measured periodically by tests and examinations, and they are graded on the results.

I would say that the major accomplishment of the men of our house, as a whole, is that 95 per cent of the entire group will succeed scholastically in attaining the purpose for which they were granted admittance to the University. They have been a credit to their parents, themselves, Butterfield House, and the University. Much credit is due the good staff of counselors for their leadership and the promotion of a fine "esprit de corps" within the house membership.

The following activities took place at Butterfield House during the year of 1965-1966:

September 16	-	Talk by Dr. Stanfield (Sociology); excellent and very well received
September 25	-	House dance; very nice affair, good mixer
September 30		Mr. Burke visited Counselor Meeting.
October 16, 17	-	Open House 1:00 - 5:00 p.m. each day; Dance in lounge for guests
November 3	-	Talk by Dr. Feldman (Psychology); well attended, student reaction mixed, somewhat less than good
December 2	-	Talk by Dr. Wolf (English); large group attended, group was interested and enthusiastic
December 7	-	"Hanging of the Greens" and "Trimming of the Tree"
December 15	-	Butterfield Christmas Party and Carol Sing
February 19,20	-	Open House and Collation (Butterfield silver service used for the first time); affair enjoyed and silver service much admired House dance; very successful - 6-piece orchestra
May 7	-	Butterfield Annual Picnic at Look Park; well attended and properly behaved
May 9	-	Election of house officers for 1966-67

As of now, we plan to keep Butterfield House well in the front rank as the House in which one is fortunate to be a resident. The effective execution of the plan is not without the need of maintenance and supplies. New lighting has been requested repeatedly for the large study area downstairs, new lamps are needed for the lobby itself. Some new furniture for these rooms is desirable. Many of the student rooms are sorely in need of new paint and general refinishing. The extent to which we are able to bring these plans to fruition in the coming year depends upon the extent of maintenance and supply aid that is provided.

Myree M. Richmond
Head of Residence

Chadbourne House, 1965-1966

Chadbourne House has a capacity of 152 students. We started in September with 156, including 26 tripled rooms. At closing, we had no tripled rooms. Also, we have given one single room to the janitor for his use.

We have had a busy year with many activities. A letter was given to each incoming freshman welcoming him to Chadbourne and telling him a bit of the closeness of the house. We entered a float in the parade at Homecoming and won second place and received a plaque to add to our collection.

In September, we had an evening with Coach Gladchuck as the guest. He presented two trophies and showed slides of outstanding football games. Other speakers we have had at the house are Dr. Ross and Dr. Gage. Refreshments were always served by the boys.

Three dances with girls from various residence halls were held. Music for the most part, was provided by records. At one dance, an orchestra comprised of the boys was used. We sponsored a dance at the Student Union with the "Love Lace Lads" of Boston as the musicians. This dance was well attended and swelled our treasury.

A very successful and well-planned picnic was held early in May at Robin Fenno in Belchertown. About sixty boys and their dates attended.

We have had our dormitory elections, have rewritten our constitution, and have presented that with our budget to be approved.

During examinations, coffee was served nearly every night at 10:30 p.m. I have entertained by counselors many times. Last December I took them to see "The Sound of Music." We held a ping-pong tournament and both the winner and the runner-up received a trophy. A play-off between the winner from Baker and the one from Chadbourne was held; Chadbourne won.

Chadbourne has had a successful year. The boys have started plans for next year, and I look forward to working with them.

Anne L. French
Head of Residence

Gorman opened in September with 367 students, including 31 tripled rooms. We are fortunate at Gorman for having thirteen study rooms which have proven their value to study, and they became more popular among the students as they were used.

Gorman is a very athletic house having participated in many sports, winning trophies and awards. We have also had many social functions throughout the year. First, we had an Open House for freshmen and invitations were sent to the parents. Several mixers were held with some of the women's residence halls. We had a very successful dance in the Student Union in November called "Weeds A-go-go." There was a Christmas Dance at the Newman Center.

For speakers we had Mr. Gladchuck, Dr. McBride, Mr. Lambert, and Mr. Welles.

Our needs are many here at Gorman. The need of a lounge, a recreation room, and especially a kitchenette is much needed. We also need more storage space. The lobby needs to be enlarged to meet our needs for entertaining speakers or for having other social events. A suggested architectural plan has already been submitted and approved for expanding the present lobby and provide for a recreational room at the lower level. We hope that telephones will be installed early next year to bring our accommodations closer to the level of the Orchard Hill Complex and the Southwest Complex.

Our main objective has been to maintain an orderly and well-organized house to help those whose purpose in coming to the University is to obtain their goal. Gorman House accommodated during the first semester over thirty students more than normally house with little difficulty. Academically, the house has a high rating on campus as a "study house." The percentage of students receiving high academic honors is believed to be greater at Gorman than any other house. Many honor students attribute this record directly to the constructive study atmosphere in the "house."

Students at Gorman House bought their own television set. I believe one was to be provided which was never received.

Eugenia L. Hale
Head of Residence

David Grayson House, 1965-1966

When Grayson House opened in September, there were 22 tripled rooms. The situation leveled off slowly; and at the end of the semester, we had only three triples. At the start of the second semester, there were eight triples which were quickly switched around so that within two weeks all rooms were normal. As of now, there are three empty beds here and two counselors have roommates (by choice). During spring vacation, Grayson House was open and accommodated 150 students.

During the past year, our House Council has contributed $100 from house funds for additional records for the record library. More books have been added to the regular library. All of the studies are now enclosed. We have received furniture for the links. This past semester fifty classes have been held in Grayson House each week.

We had our residence hall dinner on each Monday. These were usually followed by a speaker in our main lobby. There was always a coffee hour and discussion between faculty fellows and students following dorm dinners. We had a series of four lectures on Greek Culture, a series of four live Sunday concerts, and many Sunday concerts of recorded music. We have a very successful coffee house--a la Broken Egg and several dances. We also had a series of movies. Some of the faculty fellows held regular group discussions with their sections. At these meetings, refreshments were served. We were active in intramurals but won only one championship (basketball).

We need some sort of doors (glass) to the main lounge. These would cut off the noise of the phones and the traffic (foot). We would much appreciate some janitorial service on Sundays and holidays. I would like to have the North outside door fixed so that it would remain locked when the house is empty. Locks should be taken off the doors to the shower rooms. These cannot be opened with a key--what a wonderful place for an orgy or to commit suicide!

Elma A. Cook
Head of Residence

Greenough House, 1965-1966

Greenough House opened in September with 160 students. There were 77 tripled rooms. The House Council had been elected in April of 1965 and went into operation immediately. Meetings have been held twice monthly. Letters of welcome were mailed to freshmen in August.

We have continued to stress academic, social, and athletic interests within the house. A list of all students with their majors was posted on each floor. A special meeting for freshmen and transfer students was held. John Tunzi, house president, gave a very comprehensive talk on study skills. Donald Wing, head counselor, counselors, house officers, and a few other key students were on hand to greet the new residents and answer questions. Refreshments were served.

The Greenough Incentive Prize was awarded each semester to the two students who achieved the highest gain in cumulative average. Intramurals were stressed, and general participation was good.

The Social Committee was very active. Seven dances were held in the basement. Ten informal coffee hours with a faculty guest (several times preceeded by a small dinner group at the South Commons), two illustrated lectures, and a talk by a member of the Massachusetts State Police staff made up our D.V.P. for the year. Open House was observed on three occasions.

The counseling staff is grateful to Dr. Gage and Dr. Pippert for their contributions in furthering the counselors' program.

Screens were installed throughout the building. There are many recommendations for renovations; the Administration is in the process of making plans for these in the fall.

Edith L. Rehfeldt
Head of Residence

Hills House North, 1955-1956

Hills North started the fall semester with 242 house members with 24 tripled rooms which was reduced to normal capacity of 225 second semester. Atmosphere of the house has been relatively good.

House was repainted and new furniture for both lounge and recreation room was received and also for the head of residence's apartment. A stereo, piano, and ping-pong table have been added and have also added to the enjoyment of all. Trees have been planted at both the front and rear of Hills House.

Hills North has many fraternity members which precludes interest in house activities. Several speakers from Placement and the Infirmary have spoken and two successful dances were sponsored. The dances enabled the House Council to procure films for free movies to be shown in the lounge on five successive weeks. We also had three open houses. Interest in intramurals was good; and while no trophies were obtained, better participation was shown. A ping-pong tournament, managed by Hills North, created a good spirit between Hills North and South. Trophies to the winner and two runnerups were given.

The condition of the drapes and curtains in the lounge are deplorable. Measurements and material were chosen last year for the lounge, resident rooms, and head of residence apartments at the time of painting but have not materialized. Study rooms on each floor are needed. Lounge area is the only area for study for both Hills North and South which eliminates a study area when the lounge is in use for any activities.

Laundry equipment is in use 24 hours a day and is constantly "out of order." (We still have the original machines when the residence hall was built.) Two ironing boards for 400 boys is insufficient. The play area for Hills House and Cayman (lot to the south of Hills South) needs a good rolling to be made level. Boys complain it is too rough and bumpy and, thus, is a hazard-ment in keeping playing localized.

Grace B. Glass
Head of Residence

Mills House South, 1965-1966

Mills South started the year with 222 students and finished with 217. It has been for the most part a good residence hall.

The major accomplishment was the painting of the lavatory and the acquisition of new furniture for the lounge, recreation room, and head of residence's apartment. The addition of a stereo, piano, and ping-pong equipment was greatly appreciated. We were disappointed, however, that money was not before the draperies for the lounge and head of residence's apartment as well as curtains for the students' rooms were acquired.

Mills South having so many fraternity men is not a very social residence hall. The students are most interested in their various fraternities and the few who do not belong have their own outside interests. Two dances were held and sports movies were shown, but these events were not well attended. It is difficult also to find a night that does not conflict with other events. Those students who wished also attended movies and two lectures that Mills South presented.

Our future plans will probably be along these same lines unless per chance we have an eventually active House Council which is something we never seem to have. Freshmen coming in join fraternities as soon as possible. We do not have a place that can be devoted to social activities as our large lounge has always been used as a study room as we do not have any regular study rooms.

Elaine Williams
Head of Residence

William James House, [illegible]

James House opened in September with a [illegible] over normal occupancy. Overcrowding, inadequate [illegible], lack of telephones, hot water, heat, [illegible] made living conditions difficult. By second semester, most of these deficiencies had been corrected and occupancy was down to 209 residents.

A House Council was selected in September and immediately started work on drafting a constitution and drawing up regulations. The constitution was not ratified until May, but cooperation between the counseling staff, the Council members, and the establishment of a House Judiciary in October resulted in effective student self-government.

House Judiciary, which handled less serious disciplinary infractions, was a very successful innovation this year. Cases were handled objectively and fairly adding to the feeling of autonomy among the residents.

Social activities included two mixers at James House and one at the Student Union. One dance at the Student Union was also sponsored by us. Three speakers drew fair attendance. Open House was held three times. In December, a "trim-a-limb" party was shared with the entire complex and ceremonial lighting of the Menorah candles was held each evening during Hanukah.

Two athletic teams represented James in intramurals. The Colt-45's were league champions in basketball; the Comanches lost in dormitory team bowling by 7 pins and were runners-up in dormitory horseshoes. Intra-dorm trophies were awarded in table tennis, badminton, and tennis. Election of house officers in May resulted in an unusually enthusiastic campaign and record vote of 85 per cent of the residents.

As the Southwest Residential College becomes more of a reality next year, social, athletic, and cultural programs will be planned on a college-wide basis. One English section met in our date lounge second semester. The instructor felt that the informal atmosphere and closer personal relationship of such a class was successful and worthwhile. A major need is for meeting and office space. House Council meets in the date lounge and House Judiciary in the linen room - a very unsatisfactory arrangement.

I would suggest removing rooms B-15, B-16, and B-17 from student occupancy. Because of their location under the recreation room and next to the laundry room, they are unfit for student living but could be used for meetings with Faculty Fellows, by house organizations, and even for small class groups. The laundry room must be vented. In warm weather, the entire section is damp and hot. I have, as yet, no file cabinets and no place to store the endless forms and records which must be maintained.

Until more Faculty Fellows are recruited and some reward offered for their efforts, I fear it will be difficult to establish the residential college concept. In order to do effective and sustained work, they must have facilities and motivation not now available.

Mary Louise B. Hubbard, Head of Residence

Mills House, 1965-1966

As Mills House is one of the smaller residence halls on campus, the clientele served has not exceeded 170 this past year.

Being that all the students are undergraduates, there are no research projects or publications undertaken by students. I, however, have continued by M.F.A. program in art. This was my fifteenth semester (I am allowed to take only one course a semester.). Four more semesters and I should get my degree.

In order to run the house more efficiently, a five member House Judiciary was selected to take care of all the disciplinary problems in the house. It has done an excellent job. Also, installment of emergency lights is in the process of being completed. Mills House "cherries" (third and fourth floor athletic teams) were awarded the President's Cup for being the intramural champions for 1965-1966.

Besides all the previous requests made in every annual report, I have a new one to make this year. In order to prevent the noise from carrying over across the street (as well as other kinds of activities), it would be a great idea if the street between Wheeler and Mills would be made into a boulevard with a grassplats or media in the middle. The street is wide enough. The parking on the street would have to be restricted to a minimum. The trees along the boulevard would be especially welcomed from Mills' point of view because of the shade they would give.

Previous requests have been a basic renovation of the building, complete new furniture in the rooms, study rooms or areas, a bigger lounge area on the main floor, soundproofing of the building, and a kitchenette downstairs.

Regina Kempela
Head of Residence

Thatcher House, 1965-1966

Thatcher House opened in September with 158 students. Students were interested in parachuting, crew team, track team, basketball, football.

We had ten members of the University Symphony Band and three members of the University Chorale in our house. For our D.V.P. Program, we had Coach Sladchuck who showed football movies, Dr. Gamble from the Economic Department who spoke about Nationalist China, and Dr. Janowitz who had an informal discussion.

Social events included the following:

October 16	-	Homecoming weekend including float and dance were very successfull
October 29	-	Dance and a broadcast by WHUB
November	-	A mixer with Hamlin which was a success
December	-	Christmas dance and carol sing. Trimmed tree with all girls in quadrangle invited.
February 18, 19	-	Winter Carnival Weekend - a social hour was held after Carnival Ball.
April 17		Open House
May 14	-	Picnic at Long Park plus a dance at Thatcher.

Also, a welcome booklet is being printed for incoming freshmen for September of 1966. We would like to have a piano as the students seem to be most interested in having one in the residence hall.

Bella M. Pierce
Head of Residence

Noah Webster House 1985-1986

The staff consists of the Preceptor, twelve Faculty Fellows, a Faculty Resident, a Head of Residence, an Assistant Head of Residence, and twelve Counselors. The committees included in the house are the house council, activities, cultural, social and athletic.

In September, Webster opened with 198 men; there were 22 triples. By the second semester, it was down to normal with 177 students. The year has been a busy one with 80 classes a week held in the various lounges. These classes seemed to be happy with the situation. The intro-disciplinary course on Russia held in the main lounge was very popular.

The cultural programs consisting of lectures, foreign movies, and corridor discussions with the Faculty Fellows were quite popular. The Great Decisions Lectures and Discussions were especially well attended by both students and town's people. The Activities and Social Committees have been very active. Homecoming was an outstanding weekend as Webster won the first prize in the first parade for the second year in a row. Our dances have been well attended and well run.

The big week, Noah Webster Week, was highlighted by reading the last edition of the "Noah Webster Dictionary" by the students in half-hour readings for twenty-four hours a day for the entire week. There were 515 pages read in 168 hours. During this week, we also had a student art show and an Open House for parents and friends on the weekend. There was also a joint dinner party and dance with the Dickinson House. The French Corridor had had many dinners and social hours together with the French Corridor from Eugene Field House.

The dormitory dinners have been interesting. At some of them, there have been door prizes which have made them novel and interesting. The house has added many books to their library and also started a record library consisting of both classical and [illegible] records. Our athletic lectures have been very busy with the intramural program. We have had football, softball, and rollerball teams and also basketball.

In 1986-1987, we will have no house triples. This will be of tremendous value to the students as they will not have crowded conditions to work and study. It would be a great advantage to have a partition in the main lounge to the reception desk area to cut down on the noise during class hours.

I would also suggest a larger ladderfall staff up into the building in two-hour shore and should especially like to use a janitor to call for a few hours on a Sunday and on holidays, these are the days when we have many visitors.

Lillian M. Lane
Head of Residence

Wheeler House, 1965-1966

Wheeler House served 198 residents of the house. Due to the lack of operational facilities for social activities, such activity is limited.

A welcome dance was given in Newman Center for students of southwest residence halls in conjunction with Brett, Brooks and Mills. Approximately 200 to 300 persons attended. Varsity Coach Jack Delaney and Bernie Dallas, Captain of this year's football team, talked and showed pictures in our study hall to about 150. We participated in the float parade and had a small marching group of about twenty. We had a combination sleigh ride and dance party. At Christmas, we sent sixty large Christmas messages signed by all members of the house to a number of American military units in South Vietnam. In return, we had many answers of thanks and a personal Christmas card from President Johnson. We had a mixer with Hamlin during the holiday season, a trim-a-limb party, and a party for 50 underprivileged children from the Salvation Army. A mixer was held with Van Meter and another was held with Arnold House. There was a meeting in the study hall with Joe Rogers, the swim coach. We had a social hour for seniors and families following graduation exercises. Coffee and cookies and/or doughnuts were served during exam periods for one week at mid-year and finals. Coffee was provided by the University and food from dormitory dues.

A detailed description has been submitted for renovation to change this house from a dormitory to a residence hall, although some changes in the submitted plans would be advisable. The members would like, this fall, to have B-2 and B-3 made available for a t.v. room. If this is done, acoustic tile should be put on the ceiling and walls to protect rooms above the study hall.

Emily E. Raymond
Head of Residence

UNIVERSITY OF MASSACHUSETTS

STUDENT PERSONNEL SERVICES
OFFICE OF THE DEAN OF STUDENTS

ANNUAL REPORT

July 1, 1965 to June 30, 1966

The reports of the various operating agencies of Student Personnel Services present in considerable detail the ongoing activities of this division for the past year. It is clear from the tone of these reports that every agency is pressed by the matter of numbers, is concerned by the increasing complexity of the tasks which are developing in a university of this size and character, and with the continuing difficulties of making do in staff, both professional and support, from year to year.

This is not to say that one can find lack of enthusiasm for the exciting things that are happening, or lack of initiative in entering into new projects. Rather, it is to suggest that the sheer magnitude of the University responsibilities assigned to various agencies has reached a point where the time for thought and plan and integration is long overdue, and that perhaps one of the more important tasks within the next year or two will be the establishment of some island of calm where administrators in the various agencies may consider their own tasks calmly and with views to the future.

The major challenges extended to Student Personnel Services have been the preparation for occupancy of the Southwest residential group which will add to its physical facilities complement this year the five twenty-two story residence halls. There has, in addition, been the year-long dialogue of considering complexity and, I hope, some continuing productivity between the faculty and student senate members of the committee defining their interrelationships. It would be my hope that we will build next year on a base which, while it may be confused, has at least been firmed up by the examination of fundamental issues and honest interrelationships.

The maximum percentage growth which the University might expect in sheer student numbers may well have occurred within this past year. It would be hoped that with a somewhat larger base line that the absorption of additional students can be done with greater smoothness and ease. It is also with some relief that we view the opening of 1966-67 as the first year in several in which the housing facilities and dining facilities on the campus have been entirely adequate to the demands to be made upon them by our incoming students. For this accomplishment our sincere thanks should go to the Building Authority members who have worked so cooperatively with us in the Southwest area.

William F. Field

William F. Field
Dean of Students

APPROPRIATION

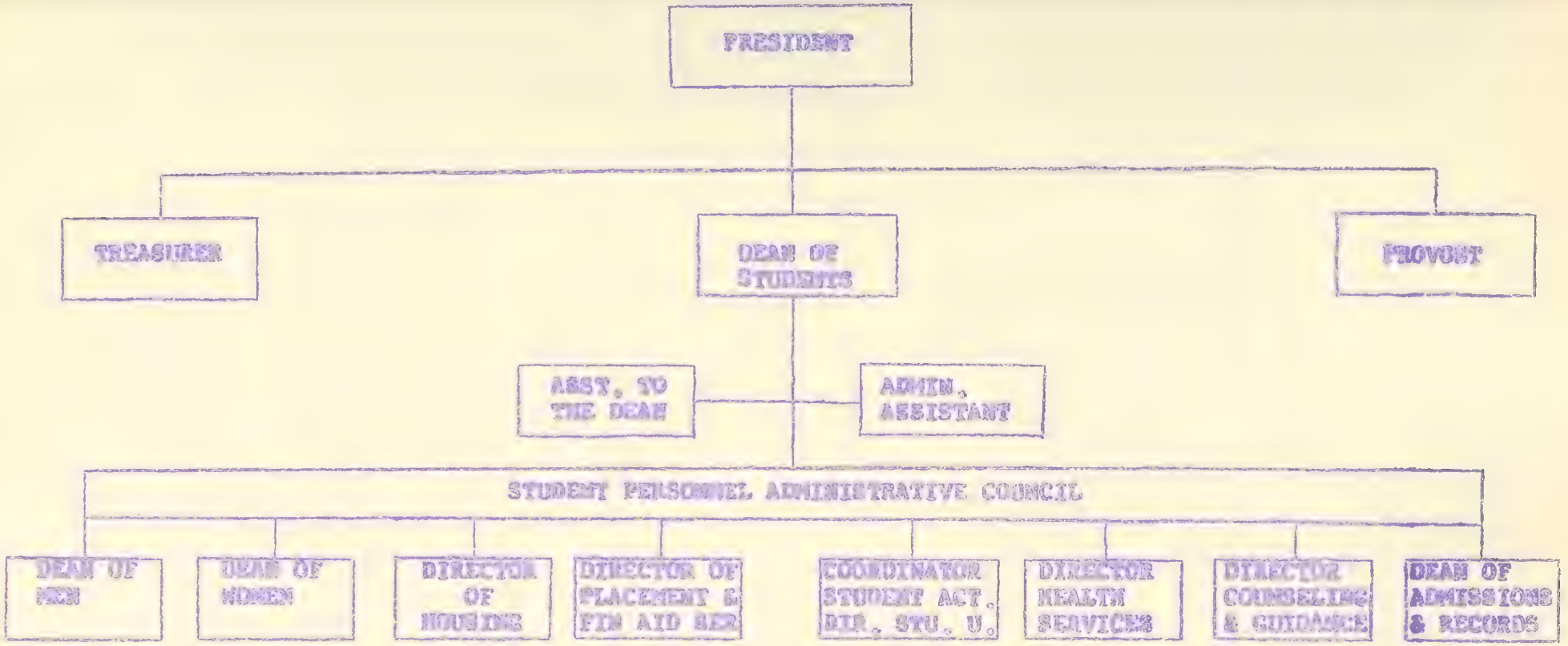
Account	Fiscal Year 1963-64	Fiscal Year 1964-65	Fiscal Year 1965-66
03 Services Non-employees	$11,128.00	$10,871.75	$ 1,826.00
06 Housekeeping Supplies	-	5,000.00	-
10 Travel	590.00	400.00	830.00
11 Printing	250.00	115.00	900.00
12 Repairs, Alterations, etc.	65.00	290.00	190.00
13 Special Supplies	3,084.00	4,675.00	2,450.00
14 Office and Administrative Expense	6,700.00	3,445.00	1,560.00
15 Equipment	799.20	1,905.00	373.00

PERSONNEL

Position	Sept., 1963	Sept., 1964	Sept., 1965
Dean of Students	1	1	1
Head Clerk	1	1	1
Senior Clerk-Stenographer	1	1	1
Staff Assistant	-	1	1

ORGANIZATION

See chart



UMASS/ Amherst

Dean of Students

7/1/65

DEPARTMENT OF AIR SCIENCE
AFROTC DETACHMENT #370 (AU)
United States Air Force
University of Massachusetts
Amherst, Massachusetts

20 May 1966

ANNUAL REPORT OF THE DEPARTMENT OF AIR SCIENCE

1. APPROPRIATIONS - by fiscal year (FY)

		FY 64	FY 65	FY 66
01	Salaries, Permanent Positions			$9,649.00
02	Salaries, Other			1,831.00
03	Services, Non-employees	$ 100.00	$ 125.00	200.00
04	Food for Persons	37.50	45.00	38.00
10	Travel & Automotive Expense	75.00	315.00	148.00
12	Repairs & Alterations	50.00	50.00	50.00
13	Special Supplies & Expenses	175.00	400.00	450.00
14	Office & Administrative Expenses	150.00	150.00	150.00
14-1	Telephone	550.00	1300.00	900.00
15-2	Equipment	500.00	500.00	
	TOTALS	$1,637.50	$2,885.00	$13,416.00

2. PERSONNEL - as of September

	1963	1964	1965
Colonel	1	0	0
Lt Colonel	1	1	1
Major	2	2	2
Captain	1	2	2
TSgt	3	3	3
SSgt	2	1	1
Senior Clerk-Stenographer (Grade 7)	1	1	1
Military Property Clerk (Grade 5)	0	1	1
	11	11	11

3. ORGANIZATIONAL CHART - See Attachment #1.

4. STUDENTS OR CLIENTELE

a. Number of Majors -- None

b. Number of students taught -- September

	1963	1964	1965
Air Science 1	317	251	302
Air Science 2	148	116	108
Air Science 3	58	41	57
Air Science 4	33	55	55
TOTALS	556	463	522

5. FACULTY PUBLICATIONS, RESEARCH GRANTS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITIES -- None.

6. MAJOR ACCOMPLISHMENTS

a. Air Force ROTC Junior Program. This department has been designated by AFROTC Headquarters to furnish liaison and support for the Air Force ROTC Junior Program located at Technical High School in Springfield, Mass. This program was authorized by "The ROTC Vitalization Act of 1964." The mission of this program is to acquaint secondary school students with the aerospace age, to strengthen character and promote an understanding of the role of the citizen soldier in a democratic society. As the Junior ROTC Program expands, it is anticipated that this department will be designated as the liaison and support unit for other high schools in the Western Massachusetts area.

b. The above legislation also authorized the operation of a highly competitive two-year program, which is designed to permit students to enter AFROTC in their junior year of college and be commissioned as Second Lieutenants upon graduation. The inception of this program has met with a good response, as evidenced by 12 students enrolled in the Professional Officer Course for the 1965/66 academic year and 23 applicants being considered for enrollment in the 1966/67 academic year. The Financial Assistance Program, also authorized by the Vitalization Act, provides for tuition, fees, and books to a small number of students who participate in the four-year program. This department received six of these grants for the 1965/66 academic year and will receive eight for the 1966/67 academic year.

c. Flight Instruction Program. The Flight Instruction Program enjoyed another successful year, with ten students satisfactorily completing the program, four of whom obtained private pilot's licenses. Flight training was completed on 5 May, and the University of Massachusetts once again exceeded the majority of other universities throughout New England.

7. SPECIAL PROJECTS OR PROGRAMS

a. The Arnold Air Society, a cadet honor society, has been quite active during this academic year. In addition to their work with the Boy Scouts, Civil Air Patrol, and high school visitations, members of the Society have done volunteer work at the Belchertown State Hospital. The Society is also responsible for the initiation of a cadet NCO Academy. This program was established to give the freshman and sophomore cadets a broader knowledge of the AFROTC program and prepare them for their role as cadet leaders during their junior and senior years.

b. The Angel Flight, a society of young ladies sponsored by the Arnold Air Society, has just completed a successful two-year reign as Area A-1 Headquarters (New England) for the Society. In addition, the Angels have been active in campus activities and in work at the Belchertown State Hospital.

c. The Flying Redmen Drill Team has continued to represent the University in a fine manner by participating in local community and area affairs. They have also continued the tradition of competing in the New England-New York and the National Cherry Blossom Festival competitions.

d. Base visitations have been made during this period to Westover Air Force Base, Massachusetts, Otis Air Force Base, Massachusetts and Stewart Air Force Base, New York. These trips have contributed considerably to the knowledge of the participating cadets and have given them an insight into their life as future officers in the Air Force.

8. FUTURE PLANS AND NEEDS

a. We are continuing past efforts to refine and update all areas of the Air Science curriculum. This is done in conjunction with Headquarters, AFROTC and is necessitated by the ever changing technology of the aerospace age.

b. Although we still do not have a commitment to conduct Air Science courses on the U-Mass Boston campus, the facilities requirement as established last year remains valid for planning purposes. This is:

(1) Office for one officer.

(2) Office space for two typists.

(3) Two classrooms; capacity: 60 each

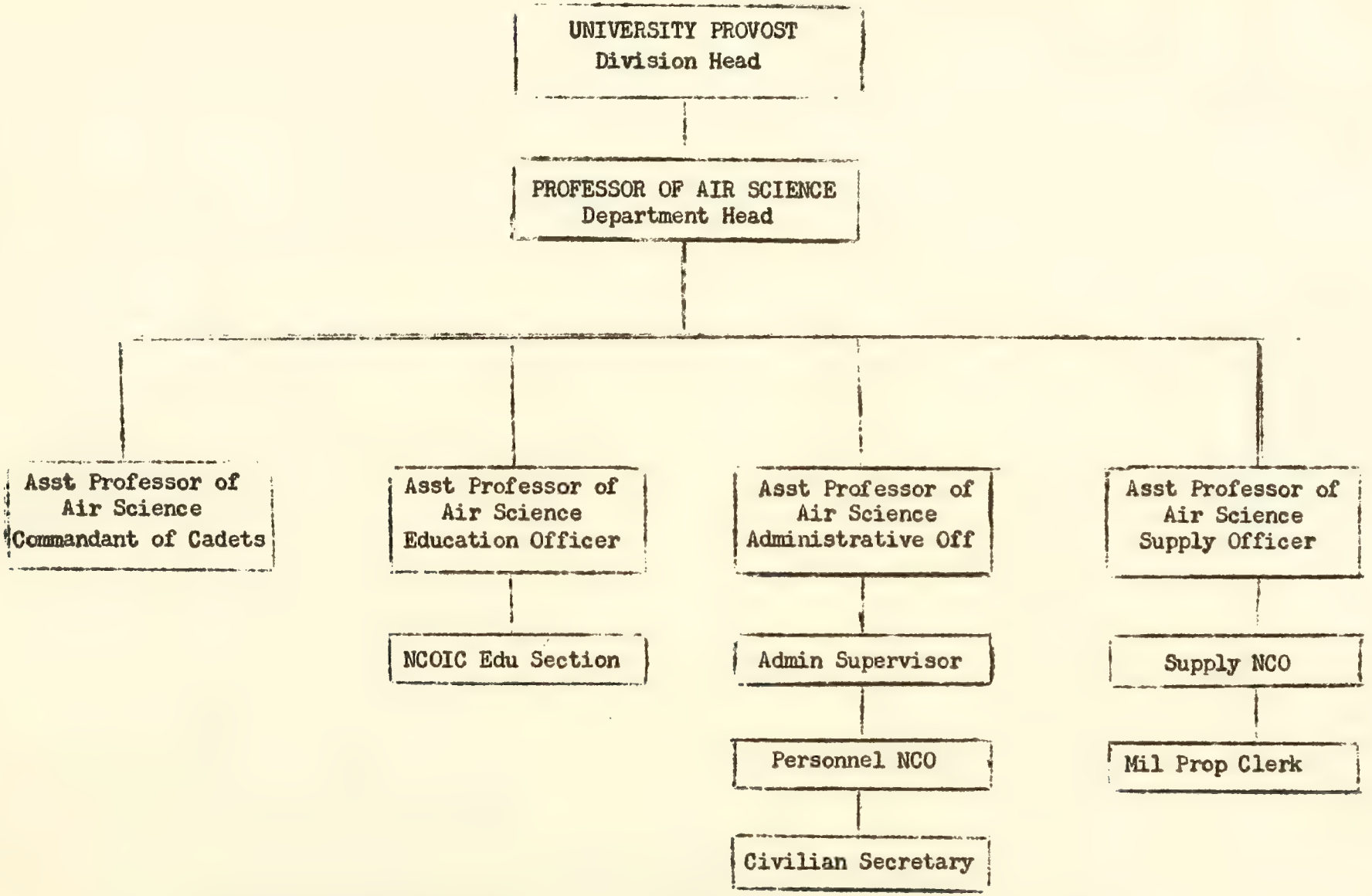
(4) Supply room: uniforms, equipment and textbooks for 120 students.

(5) Drill Area: 100 ft. x 200 ft.

c. We greatly desire that our requirements for new equipment, as established in the FY 67 and FY 68 budget requests, be granted. These budget requirements were established only after careful consideration of our needs in order to maintain the best possible program.

Roy D. Simmons Jr.

ROY D. SIMMONS, JR., Lt Colonel, USAF
Professor of Air Science



Attachment #1

DEPARTMENT OF THE ARMY
US ARMY ROTC INSTRUCTOR GROUP
UNIVERSITY OF MASSACHUSETTS
AMHERST, MASSACHUSETTS, 01003

18 May 1966

ANNUAL REPORT OF THE DEPARTMENT OF MILITARY SCIENCE

1. APPROPRIATIONS - by fiscal year (FY):

		FY 1963-64	FY 1964-65	FY 1965-66
03	Services, non-employee	$ 100.00	$ 328.00	$ 200.00
04	Food for persons	$ 37.50	$ 30.00	$ 37.00
06	Dry Cleaning	-----	$ 75.00	$ 100.00
10	Travel & Automobile expenses	$ 50.00	$ 60.00	$ 87.00
12	Repairs & Alterations	$ 50.00	$ 50.00	$ 100.00
13	Special Supplies & Expenses	$ 175.00	$ 300.00	$ 600.00
14	Office & Administrative Expenses	$ 150.00	$ 150.00	$ 150.00
14-1	Telephone	------	------	$ 900.00
15	Equipment	$ 500.00	$ 75.00	$ 80.00
	TOTALS	$1062.50	$1068.00	$2254.00

2. PERSONNEL - as of September:

	Sep 1963	Sep 1964	Sep 1965
Colonel	1	1	1
Lieutenant Colonel	1	0	0
Major	1	0	1
Captain	6	4	3
Enlisted	4	5	5
Senior Clerk Grade 7	1	1	1
TOTALS	14	11	11

3. ORGANIZATIONAL CHART - See Inclosure 1.

4. STUDENTS:

a. Number of Majors: NONE

b. Number of students taught - Stptember:

	Sep 1963	Sep 1964	Sep 1965
(1) Freshmen	254	217	242
(2) Sophomores	119	97	91
(3) Juniors	52	52	65
(4) Seniors	29	48	58
TOTALS	454	414	456

5. FACULTY PUBLICATIONS, RESEARCH GRANTS, PROJECTS & PROFESSIONAL ACTIVITIES:

a. In Sep 63 the university adopted a voluntary program and a change from Armor branch training to a General Military Science curriculum for the Reserve Officers' Training Program. This change has facilitated the commissioning of cadets in arms & services more appropriate to their major than has been the case in the past.

b. One officer attended refresher course at Fort Devens, Massachusetts in military instruction techniques and in the use of audio-visual equipment.

c. One officer and one noncommissioned officer attended the projectionist operators' course and were licensed.

6. SPECIAL PROJECTS OR PROGRAMS.

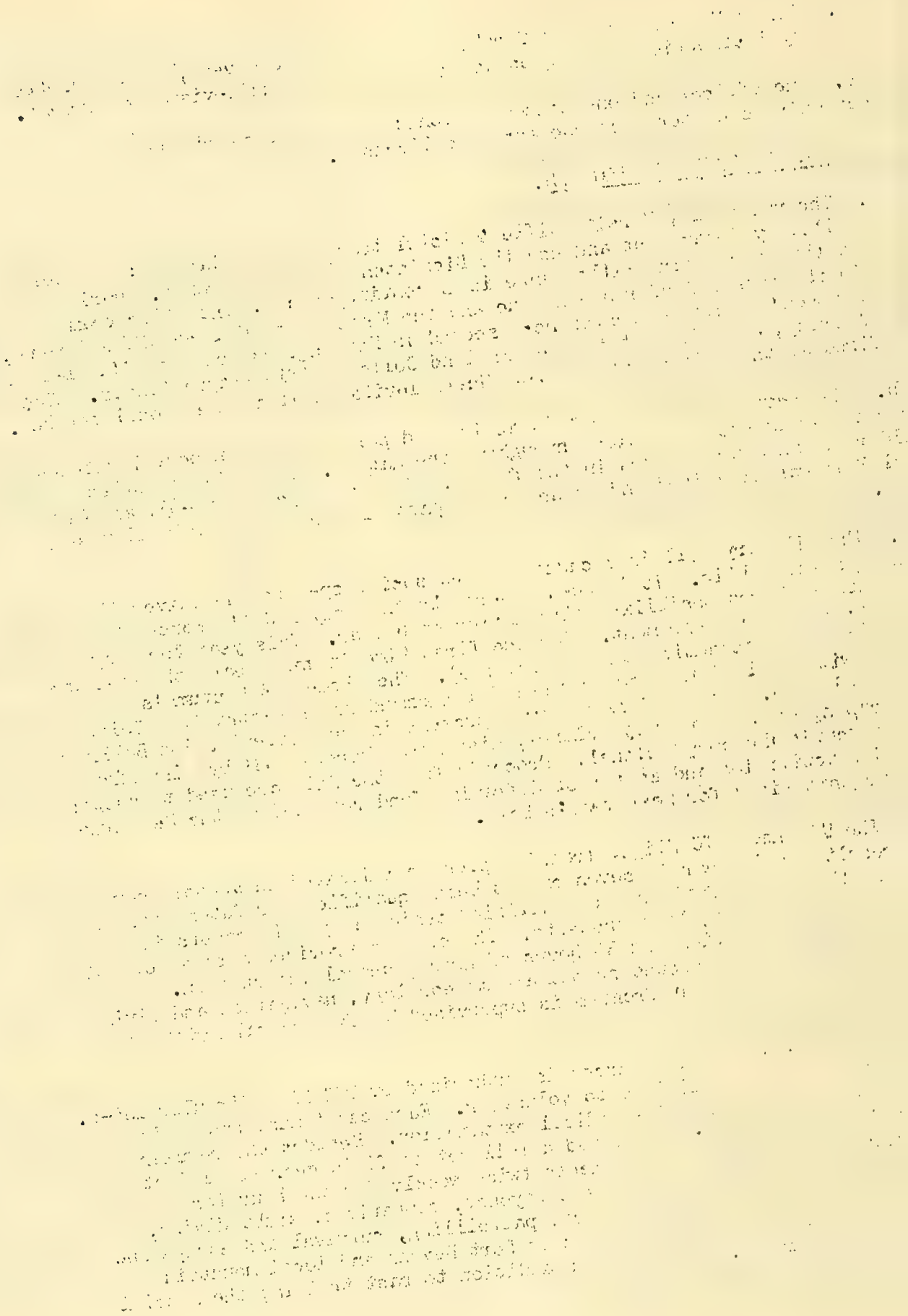
a. The university Varsity Rifle & Pistol teams are coached by personnel of the Military Department and use the Dickinson Hall rifle range. During the week this five point rifle range is in continuous use. The Rifle team fired in the Yankee Conference League and the New England College Rifle League, placing second in Yankee conference, second in New England College Rifle League Central Group, and fifth at the New England College Rifle League finals. They also fired at the United States Coast Guard Invitational and Sectional matches.

b. The Army ROTC Rifle Team is active and participates in postal matches with colleges and universities throughout the nation. They plan to schedule shoulder to shoulder matches in the future. In school year 1962-63, an ROTC Pistol Team was organized and began active participation in a national postal league.

c. The Military Ball is a cadet managed social open to the University and the general public. It is co-sponsored by the Army and Air Force ROTC Departments with responsibility alternating each year. This year the Army was the responsible department. For the first time in many years the Ball was held early in the academic year (November 6). The theme was "Autumn's Twilight" with music furnished by the NORAD Commanders Orchestra from Colorado Springs, Colorado. Over 300 cadets were present in the Student Union Ballroom for the caping of the Honorary Colonel, Miss Margo Marsten 68' by Miss Diane Dube last year's Honorary Colonel. Proceeds from the Ball are used to support other cadet activities and as a cost defraying fund retained by the Recognized Student Organizations for next year's Ball.

d. The US Army ROTC Flight Training program initiated in school year 1962-63 resulted this year in seven cadets being qualified for future flight training in the Army. Training for qualified senior Army ROTC cadets is conducted at Northampton, Massachusetts. The program provides a total of $36\frac{1}{2}$ hours of flight instruction and 35 hours of ground school instruction. Subjects included during ground school are meteorology, navigation and Civil Air Regulations. The Flight Program is supervised by the Federal Aviation Agency.

e. The Bay State Special Forces is authorized by USCONARC Circular 145-6. All Army ROTC cadets are eligible to volunteer. Each cadet must pass a PT test, a personal interview and a medical examination. Besides the regular Class A uniforms, each cadet is issued a full set of field gear sufficient for year round training. The unit meets twice weekly for one hour for training in weapons (including firing), bayonet, combatives, scuba diving, grenades, rappelling, counterinsurgency, patrolling, survival and escape and evasion. Weekend field trips are taken to Fort Devens and local mountain areas about once a month. This year in addition to past training the Special



Forces have participated in three weekend drills with the local Infantry National Guard and Reserve Special Forces Unit. Valuable training was the result for all concerned.

The unit is held in high esteem on the campus because of the stiff entrance requirements, the type of training conducted, the personal appearance of the unit members and the reputation of the Regular Army Special Forces. This year the unit has been called on to fight two forest fires and mustered to search for a lost child.

The unit is a Recognized Student Organization and as such has a constitution and is eligible for the benefits of the RSO. The unit participates in all Brigade ceremonies and in addition marches in local area parades such as the Saint Patrick's Day Parade in Holyoke. The unit also gives demonstrations on their training at the request of local service organizations.

f. The Grenadier Drill Team was organized in the fall of 1963 to meet the needs of a small group of students enthusiastic about precision drill. It is an extra curricular organization designed for precision drill and service to the University and the ROTC Detachment. The team consists of sixteen members that practice three or four times a week.

The drill team has performed in a number of activities this year. In November it participated in the Pearl Harbour Day Veteran's ceremony in Greenfield, Massachusetts where they received numerous compliments on their performance. It has marched in the Annual Brigade Spring Fall Review, the Holyoke Saint Patrick's Day Parade and provided a color guard for the High School, Small Schools Basketball Equipment held here on campus. The team has acted as aggressors on several occasions for the Junior tactical training problems and has qualified (modified course) with the M-1 on the trainfire range at Fort Devens.

This has been the third year of practice and organization. Next year it is hoped that the team can be further refined and prepared for participation in more drill meets.

g. The Precisionettes, the University all women drill team, completed their second full year under the sponsorship of the Department of Military Science. Formerly, a part of the University Band, the Precisionettes performed as an independent unit taking part in many varied activities during the school year. Included in these activities were the traditional half-time performance at football games and marching in special parades such as the Pittsfield Haloween Parade, the Holyoke St Patrick's Day Parade and the University Homecoming Parade. The highlight of the year's activities was a trip to Washington, D. C. to participate in the Annual Cherry Blossom Festival. While there they participated in the COED National Inter-Collegiate Drill Teamp Championships and represented the University in the Festival's Parade Princesses.

7. FUTURE PLANS AND NEEDS:

a. A covered drill hall is needed for inclement weather drill instruction of the Corps of Cadets and of the drill teams. It could also be used for classes, dances, limited athletic activities, and other curricular and extra-curricular activities.

b. With the University plans for expansion and large number of teams which currently use the indoor range facilities, the present five point range will not be able to accommodate all teams in the near future. Plans have been presented to include in the new Field House a 20 point firing range to accommodate the large number of teams.

c. At the present time the Army Supply is in the process of being relocated in the basement of Dickinson Hall. The complete plan provides for an extension of the Supply Room into the Arms Room. When this extension is completed it will be possible to maintain adequate supplies to support a Cadet Brigade of approximately 600 students.

d. An outside training area is needed for individual and unit training. Included in this area should be a 25-point 25-meter range, repelling area, physical combat proficiency course, hand-to-hand combat area, bayonet assault course and confidence course. The existence of an area of this nature would enable the department to offer a more varied and stimulating course of instruction. Furthermore it would assist us in developing a more qualified future officer.

FOR THE PROFESSOR OF MILITARY SCIENCE:

ROY FOWLER
Major, Armor
Executive Officer

1 Inclosure
Organizational Chart

ANNUAL REPORT

Labor Relations and Research Center

Fiscal Year Ending June 30, 1966

University of Massachusetts

Amherst, Massachusetts

I

APPROPRIATIONS

Fiscal Year	Total Appropriation
1964-1965	$128,000
1965-1966	$129,283

II

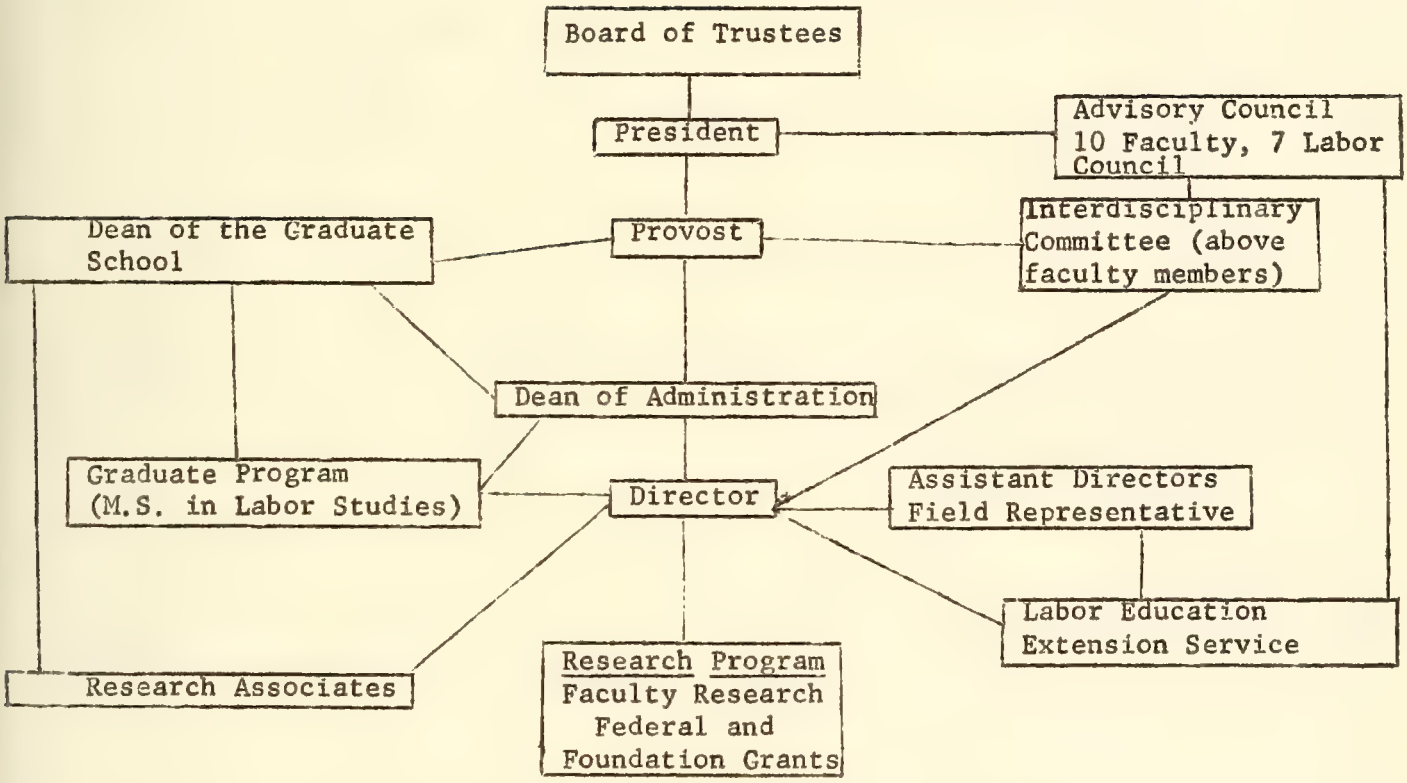
PERSONNEL

1964-1965*	1965-1966
Acting Director	Director
Consultants	Assistant Directors (2)
Clerical Assistant	Principal Clerk
	Junior Clerk-Stenographer
	Senior Clerk-Stenographer (Boston office)
	Librarian (part-time)
	Research Assistant (student, part-time)
	Clerical Assistant (student, part-time)

*part-year: personnel were on part-time while LRRC was being organized.

III

ORGANIZATION CHART



IV.

STUDENTS AND CLIENTELE

A. Majors (M.S. in Labor Studies Program):

SEMESTER	NO. OF STUDENTS
1st (September 1965)	6
2nd (February, 1966)	7

B. Courses Taught by LRRC Staff: Academic, Graduate Level

COURSE	NO. OF STUDENTS	NO. OF CREDITS	TOTAL SCH*
LR 710, Seminar	2	3	6
LR 777, Public Sector	27	3	81
Econ 744, Labor Stat.	10	3	30
TOTALS	39	-	117

*Student Contact Hours

C. Labor Education Extension: September, 1965 through June, 1966

Total registered participants = 2,333

Total different programs = 25

PROFESSIONAL ACTIVITY

A. Publications: Ben B. Seligman, Director

Book: Poverty As A Public Issue, Free Press: New York, 1965, 359 pp.

Articles:
"On Work, Alienation, and Leisure", American Journal of Econ. and Sociology, V. 24, No. 4, Oct., 1965, pp. 337-360.
"Automation", Americana Annual, 1966, pp. 105-106.
"On Theories of Automation", Dissent, May-June, pp. 243-264.
"Organizing Problems in Retailing, Labor Today, Feb.-Mar., 1966, p. 7-10.
"Automation and the Work Force", in The Guaranteed Income, ed by Robert Theobald, Doubleday: New York, 1966, 233 pp.
"Guaranteed Incomes and Negative Taxes", Christianity and Crisis, Jan. 24, 1966, p. 304-307.
Comment on Measuring Job Vacancies, National Bureau of Economic Research, New York, 1966, p. 566-573.

Reviews:
Economic Thought by J. A. Gherity, Monthly Labor Review, August, 1965.
The Accidental Century by M. Harrington, Partisan Review, Winter, 1966.
Profiles of Eleven by Melech Epstein, in Midstream, June-July, 1966, pp. 74-78.

Notes:
"The University of Massachusetts Labor Relations and Research Center", Industrial and Labor Relations Review, April, 1966, pp. 482.

Papers:
"Employment, Unemployment and Government Programs", Conference of National Organization, Miami Beach, Nov. 4, 1965.
"Labor-Management Relations in Retailing", Food Marketing Conference, October 11, 1965.
"Not Fired -- Just Not Hired", Conference on Cybernetic Revolution, University of Hawaii, March 4, 1966.

Articles Reprinted:
"Who Runs the Giant Corporation?" in Readings in Modern Sociology ed by Alex Inkeles, Prentice Hall: Englewood Cliffs, 1966.
"Automation and the State" in The New Technology and Human Values ed by J. G. Burke, Wadsworth: Belmont, Cal., 1966, p. 142.

B. Research Grants (Sponsored by LRRC)

1. Trade Unions and Juvenile Delinquency - Training Project - Department of Health, Education and Welfare, Approved, $72,274, 1 year.

Principal Investigator: Prof. R. E. Stanfield, Dept. of Sociology

Research Grants (Continued):

2. Mental Health Impact of Plant Shutdown - National Institutes of Mental Health, In Process, $35,040, one year,
   Principal Investigator: Prof. Richard Johnson, Psychology
3. Cost-Benefit Analysis of AFDC Programs in Massachusetts, Department of Health, Education and Welfare, In process, $132,984, one year.
   Principal Investigator: Prof. Gordon Chen, School of Business Administration.
4. Institutional Manpower Research Grant - Department of Labor, In process, $45,000 - 3 years. Labor Relations and Research Center

C. Faculty Research: (funded by LRRC)

1964 - 1965

Queing Theory and Manpower Requirements in Retail Food Stores	
Prof. Theodore Leed, Ag. and Food Economics	$1,000
Research Needs in Massachusetts	
Prof. John L. Blackman, Economics	2,800
Presidential Seizure in Labor Disputes (Book)	
Prof. John L. Blackman, Economics	800
Concession Process in Bargaining	
Prof. S. Himmelfarb, Psychology	900
Response of Congress to Critical Elections	
Prof. David Mayhew, Government	300
Consumer Warranties	
Prof. Richard Hartzler, School of Business Admin.	1,500
Bargaining and Conflict	
Prof. Pao Cheng, School of Business Admin.	1,300

Faculty Research (continued):

1965 - 1966

Guide to Economic and Social Statistics in Massachusetts	
Prof. Hilda Golden, Sociology	$2,000
Technical Change in Four Massachusetts Cities	
Profs. R. Doherty and M. Cantor, History	2,340
The Employeeistic Economy	
Prof. Stanley Young, School of Business Admin.	2,000
Bargaining and Conflict	
Prof. Pao Cheng, School of Business Admin.	1,300
Concession Process in Bargaining	
Prof. S. Himmelfarb, Psychology	350
The Meaning of Work: An Empirical Investigation	
Profs. K. Tausky and E. Piedmont, Sociology	3,000
Wage Rates in Milk Marketing in Massachusetts	
Prof. Sargent Russell, Ag. and Food Economics	

D. University Committees:

Prof. Seligman - Committee on Continuing Education

Commission on University Publications

Prof. Friedman - Committee on University Law School

Committee on Faculty Affairs

University Based Research - Training Institute (Environmental Health) Committee

E. Professional Activities: Paper (P); Speaker (S); Attended (A)

Prof. Seligman:

Sept. 4, 1965	RCIA Annual Conference, Springfield (S)
Sept. 10, 1965	ULEA Meeting, Storrs, Connecticut (A)
Oct. 2, 1965	ASPEP, Camden, New Jersey (P)
Oct. 7, 1965	State Labor Council Convention, Boston (S)
Oct. 11, 1965	Food Marketing Conference, Amherst, (P)
Oct. 15, 1965	AFT Conference, Springfield (S)
Oct. 19, 1965	Amherst Regional H.S., Social Studies Class (S)
Nov. 4, 1965	Conference of National Organizations, Miami Beach (P)
Nov. 12-13, 1965	JCEE Trustees Board, New York (A)
Nov. 17, 1965	N.E. Government LR Conference, Boston (S)
Nov. 29, 1965	Mt. Holyoke LR Class (S)
Nov. 30, 1965	U. Mass. School of Education (S)
Dec. 9-10, 1965	ULEA, Regional, U. Mass. (A)
Dec. 16, 1965	OMAT Seminar, Washington (S)
Dec. 27-30, 1965	IRRA-AEA-AFEE Meetings, New York (A)
Jan. 9, 1966	LID Conference, New York (S)
Jan. 10, 1966	WMEEC In Service Course, Springfield (S)
Jan. 13, 1966	AIC Economics Class, Springfield (S)
Mar. 4, 1966	Univ. of Hawaii Conference (P)
Mar. 11, 1966	School of Education Conference (S)
Mar. 23, 1966	WACE Interview, Springfield (S)
Mar.30-Apr.1, 1966	ULEA, Detroit (S)
April 13, 1966	Smith College (S)
April 18, 1966	Pacem in Terris Conference, Amherst (S)
April 25, 1966	4-College Editors, Amherst (S)
April 27, 1966	Community Chest, Springfield (S)

May 3, 1966	U. Mass. Economic Theory Class (S)
May 5-7, 1966	IRRA Meetings, Milwaukee (A)
May 12-13, 1966	Employment Conference, Princeton University (A)
May 14, 1966	Ludlow Teachers Association (S)
May 19, 1966	G. E. Engineers Association, Schenectady, N.Y. (S)
May 24, 1966	American Univ. Seminar on Poverty (S)
May 26, 1966	Mass. Public Welfare Administrators (S)
June 11, 1966	Alumni College U. Mass. (S)
June 13-14, 1966	RCIA Institute, Boulder, Colorado (S)

Professor Friedman

Sept. 10, 1965	ULEA Meeting, Storrs, Connecticut (A)
Sept. 6-8, 1965	State Labor Council Convention, Boston (A)
Oct. 15, 1965	AFT Conference, Springfield (S)
Oct. 28, 1965	State Nurses Association Convention, Chicopee (A)
Nov. 12, 1965	Senior Nurse Seminar, School of Nursing, UMass (S)
Nov. 15, 1965	South Middlesex Labor Council, Cambridge (S)
Dec. 1, 1965	American Society of Public Admin., Amherst (A)
Dec. 9-10, 1965	ULEA Regional Meeting, UMass (A)
Dec. 13, 1965	Harvard University Labor Economics Class (S)
Dec. 27-30, 1965	IRRA Meetings, New York (A)
1965-1966	Arrangement for Academy Homes Demonstration Project with Home Economics, ABCD, BRA and BSEIU
Jan. 14, 1966	Government Class, UMass (S)
March 1, 1966	Government Class, UMass (S)
March 21, 1966	AFL-CIO COPE Area Council Meeting (A)
March 30-Apr. 1, 1966	ULEA Meetings, Detroit (A)
May 6-7, 1966	IRRA Meetings, Milwaukee (A)
May 10, 1966	Guidance and Counselling Class, UMass. (S)
May 24, 25, 1966	Commonwealth of Mass., Collective Bargaining Conference, Boston (A)

June 4, 1966	Consumer Conference, Northeastern University (Discussion leader)
June 10, 1966	Alumni College (S)
Mr. Cass	
Nov. 3, 1965	Springfield Central Labor Council (S)
Nov. 6, 1965	University of Mass., Legislators Day, Amherst (A)
Nov. 10, 1965	Postmaster General L. O'Brien Reception, Springfield (A)
Nov. 15, 1965	South Middlesex County Council, Cambridge (S)
Nov. 17, 1965	N. E. Government LR Conference, Boston (A)
Nov. 19, 1965	AFL-CIO, Director of New Eng. Region, Boston (A)
Nov. 24, 1965	Advisory Council, Mass. Service Corps, Boston (A)
Nov. 1965	Local #220, IUE, Springfield (P)
Nov.-Dec., 1965	ILGWU, Boston Joint Board (P)
Dec. 8, 1965	Foreign Policy Association, Boston (A)
Dec. 8, 1965	Greater Boston Labor Council, "Labor Education Programs of the U. of Mass. LRRC" (S)
Dec. 13, 1965	Council for the Aging, Commonwealth of Mass., Boston (A)
Dec. 17, 1965	Meeting in Boston of Migratory Workers, O.E.O. Grant (A)
Dec. 20, 1965	Executive Council of the State Labor Council, Boston (A)
Dec. 27-28, 1965	IRRA - AEA - AFEE Meetings, New York (A)
Jan. 26, 1966	Anti-Poverty Advisory Council, Boston (A)
Feb. 13, 1966	United Papermakers and Paperworkers Annual Banquet, Subject: "LRRC Programs for Unions and Families", Leominster (S)
Feb. 20, 1966	United Papermakers and Paperworkers, New England Council Executive Board, Worcester (S)
Feb. 21, 1966	Massachusetts Industrial Union Council, Boston (S)
Mar. 3, 4, 5, 1966	University of West Virginia, Appalachia Grant (A)

Mar. 21, 1966	AFL-CIO COPE area conference (Boston) (A)
Mar. 26, 1966	Oil, Chemical and Atomic Workers Northeast District Council Meeting, Subject: "LRRC Year Round", Boston (S)
Mar.30-31,1966	ULEA, Detroit (A)
April 11, 1966	Boston College Seminar (P)
April 11, 1966	B. U. Human Relations Center, Boston (A)
April 19, 1966	Independent Condenser Workers, North Adams (S)
April 21, 1966	Lowell Central Labor Council Education Committee (S)
April 22, 1966	Seminar with the Massachusetts Legislative Intern Program, Government Dept. of the University of Massachusetts, Boston (P)
April 30, 1966	Ironworkers Apprentice Graduation (S)
May 4,5,6,1966	Conference at the University of Wisconsin (A)
May 6, 1966	IRRA Meeting in Milwaukee (A)
May 18,19,20,1966	West Virginia University, Manpower Conf., West Va. (A)
May 25, 1966	Conference of Governor's Economic Advisors
May 28, 1966	AFL-CIO, Gompers-Murray Banquet, Boston (A)

F. Other Professional Activities:

Prof. Seligman

Secretary-Treasurer, Association for Evolutionary Economics

Trustee, Western Mass. Economic Education Council

Prof. Friedman:

Nurse Utilization Study Committee, MLN, Boston

Mass. Consumers Association, Director

Boston Bar Association, Labor-Management Relations Committee

Mr. Cass:

Vice Chairman, Secretary of the Commonwealth's Blue Ribbon Panel on Campaign Expenditures

Special Advisor to Secretary of State Relative to Voting Procedures within the Commonwealth of Massachusetts

Member, Executive Board, Massachusetts Council for Public Schools

Member, Advisory Council, Anti-Poverty Program, Commonwealth Service Corps

Member, Executive Board of the Alexander Hamilton Home and School Association, Boston

VI

ACCOMPLISHMENTS

The program of the LRRC was initiated at the beginning of the 1965-66 fiscal year with the appointment of the director and the resident assistant director. (The assistant director in Boston was appointed in October, 1965.)

Development of the labor education service was immediately undertaken, with the result that by the year's end some 2333 participants were involved in twenty-five different programs completed during the fiscal year. At the same time, plans were initiated for institutes to be held during the summer of 1966, of which five were developed for the following: United Steelworkers of America (Elementary and Advanced); Retail Clerks International Association; two separate institutes for the International Ladies Garment Workers Union; American Federation of State, County and Municipal Employees (Elementary and Advanced).

The graduate program, which offers a Master of Science in Labor Studies was begun in September, 1965, with six students, two of whom were transfers from the Economics Department and are expected to receive their degrees in September, 1966. Approximately 25 inquiries have been received from 12 different states, indicating a response to our mailing of the graduate brochure to some 2,000 American universities and colleges, a mailing which will be repeated yearly. Final applications for admission in September, 1966, were received from ten undergraduates, of which eight were accepted. If all register, the graduate program will reach 12 students, doubling its operation within one year.

Faculty research and contract research were developed during the first year at the levels indicated in V above. Considerable investment of staff time and effort is involved in contract research, since this demands frequent travel

to Washington and protracted negotiations with the contracting Federal agencies. However, by the year's end one proposal had been approved (The Role of Labor in the Vocational Training and Placement of Hard Core Youth), and there were excellent prospects for at least two others.

It should be noted that significant changes were made in the structure of course offerings in the M.S. in Labor Studies program, which should strengthen the program. More time was allotted to Labor History to cover this area over a full semester. New courses in the Government of Unions, Labor Relations in the Public Sector and Labor Theory and Ideology were added to the curriculum taught by the staff of the Labor Center. Also, a course in Technology and Western Civilization was approved, to be offered in the near future.

The internship program for current students has moved well, with all students placed for the summer of 1966. It is expected that second year students will be involved in the labor education extension service to enable them to complete all requirements for the degree.

The Labor Center Library was started during the year with initial purchases of books and research materials. A special purchase of the entire International Labor Organization publications was made and is housed in the University Library. In order to develop the library in proper and effective fashion, a labor library consultant was called in to advise the Center staff.

A group of research associates is being formed, drawn from faculty personnel. The research associates will advise the Center on research activity, providing consultative services in this area and insofar as may be feasible, will undertake, on individual bases, research on behalf of the Center.

VII

LABOR EDUCATION EXTENSION PROGRAMS

September, 1965 through June, 1966

Massachusetts Nurses Association, series of eight 2-hour classes, "Economics of the Nursing Profession", September-October, 1965. 18 participants.

AFSCME Leadership Conference, all-day conference, "Collective Bargaining", November 13, 1965. 125 participants.

All New England Arbitration Conference, all-day conference sponsored jointly with American Arbitration Association and School of Business Administration, December 3, 1965. 281 participants.

Meatcutters, Local #2, Natick, Mass., one evening officers institute, "The Object of the LRRC in Assisting Local Unions; Public Affairs, i.e., Legislative Procedure; Texas, December 6, 1965. 35 participants.

ILGWU, Boston Joint Board, one session a month, "Social Security and Medicare", "Unemployment Compensation", "Labor History of Taxes", "Union and Other Health Plans", December-May, 1966. 80 participants each session.

IUE, Local #255, Pittsfield, Mass., 8-week series of classes, "A Critical Study of Predetermined Time and Motion Studies", December, 1965-January, 1966. 27 participants.

AFSCME, regional series of fifteen classes held in 8 geographical areas, "Collective Bargaining", January-February, 1966. 244 participants.

Associated Firefighters of Massachusetts, AFL-CIO, all-day conference, "The Collective Bargaining Law", January 11, 1966, 127 participants.

Boilermakers, 10-week series, "MTM and Time Study", began February 2, 1966. 15 participants

Northampton Building Trades and General Community, one-day conference, "Social Security and Medicare", February 12, 1966. 150 participants.

AFSCME, Mental Health Units, all-day conference, "Collective Bargaining Techniques", February 21, 1966. 50 participants.

Teachers Unions, Springfield, Mass., "Professionalism and Collective Bargaining", March 7, 1966. 50 participants.

AFT, Local #1359, one-day conference, "Building Organizational Activities", March 16, 1966. 10 participants.

Labor Education Extension Programs (continued)

Mass. Council of Machinists, one-day conference, "Arbitration Preparation--Federal and Union Health Plans--Impact of Social Security Changes on Collective Bargaining," March 19, 1966. 18 participants.

A.F.T.E., Local #140, Pittsfield, Mass., series of four 2-hour classes, "Effective Trade Unionism," March-April, 1966. 35 participants.

Firefighters, all-day conference, "Movement Toward Action--Collective Bargaining Techniques and Preparation for Negotiations," April 19, 1966. 74 participants.

A.F.T.E., 3-day Institute, April 20-24, 1966. 87 participants.

A.F.S.C.M.E. State University and College Council, one-day conference, "The New Collective Bargaining Law, April 21, 1966. 25 participants.

Construction and General Laborers', Local #596, 5-week series of classes, "Stewards Training," April-May, 1966. 31 participants.

Greenfield Building Trades Council, 5-week series of classes, "Contract Negotiation Techniques," April-May, 1966. 13 participants.

I.U.E., Local #255, Pittsfield, Mass., one-day institute, "Grievance Procedure and Arbitration Preparation," April 25, 1966. 18 participants.

U.P.P., N.E. District Council, 2-day conference, "Contract Negotiation Techniques--Social Security--The Impact of Social Security Changes on Collective Bargaining," May 14-15, 1966. 65 participants.

I.L.G.W.U., Southeast area, 3-day spring institute, May 14-16, 1966. 235 participants.

United Steelworkers of America, Summer Institute, District One, June 19-24, 1966. 100 participants.

VIII

FUTURE PLANS AND NEEDS

It is anticipated that the foregoing activity will be greatly expanded in the next few years. In order to carry through the program successfully, there will need to be adequate staffing by the Economics Department for the area of labor studies. This matter cannot be stressed too heavily, for in the absence of teaching staff of the caliber required to meet the needs of the M.S. in Labor Studies program, the latter will be subjected to a less than optimum rate of expansion. The consequence would be a failure to meet the objectives of the May, 1964, and February, 1965, memoranda which provide the framework for the operations of the Labor Relations and Research Center.

Given appropriate teaching staff, the Labor Relations and Research Center and the Interdisciplinary Committee may be in a stronger position to undertake implementation of the specifications of Appendix A of the May, 1964, memorandum relating to an undergraduate concentration in labor studies. Such a contingency would provide a "feeder" into the Master's program, a most desirable aspect of the overall program.

The Labor Center's extension program has developed far beyond the expectations as initially set down in exploratory discussions in 1964. At that time, the objective for the first full year of operation was to reach 300 to 400 participants through labor education extension services. As reported above, the Center, in fact, has reached some 2333 participants throughout the Commonwealth, well over five times the initial projection.

The Labor Relations and Research Center program in effect constitutes a paradigm for the overall Continuing Education program of the University. Policies and procedures developed in the LRRC program may well be transferable

to Continuing Education in general. This may be the case in such areas as use of University personnel in Continuing Education programs, extra compensation policies, fees for off campus and on campus programs, and related problems.

In terms of facilities, expansion of the graduate and labor education extension programs demands a correlative expansion of facilities. This imposes a sequence of problems that needs to be met in ad hoc fashion, a most unsuitable arrangement. The space assigned in Draper 102 is now used for the LRRC Library and cannot be assigned to any other purpose. Further, there is a dire lack of storage facilities, resulting in considerable inconvenience for the office staff, hardly conducive to efficient operation. Obviously the solution to these problems would be supplied by the construction of contemplated facilities in the Continuing Education Building. However, since the latter is a number of years away, there is need to initiate discussions with the planning officer regarding alternatives that may be appropriate and feasible.

During the 1966 Fiscal Year, the Labor Center staff taught a total of 6 student contact hours per week in the first semester. This figure increased to 111 student contact hours per week during the second semester. We further expect that this will continue to grow in future years. It is anticipated that for the Fiscal Year ending June, 1967, total student contact hours per week for LRRC staff will increase to 225.

In view of the fact that the Labor Center staff is currently planning labor education extension programs for the fall of 1966, it appears that the increase in this area will be in excess of 50% over the previous fiscal year. This estimate is based upon the anticipation of an additional staff

person to work in the labor education extension area, as well as an increased work load for the present staff. This expansion of labor education extension services as well as growing research commitments will require more personnel. We have requested one additional staff person in each area in our projected budgets. Further, the work load in the Center office has grown immensely within the space of one year and has changed sharply in character, requiring more responsibility on the part of the clerical staff than was originally contemplated. We have, therefore, requested upgrading of the Junior Clerk-Stenographer (Grade 3) post to take account of the greater responsibilities now devolving on that position.

We might note that with the opening of the Boston office of the LRRC, the operations of the Center have been intensified, with special emphasis on the labor education extension services in the eastern half of the state.

In light of the foregoing developments, there needs to be recognition of the need for appropriate "back-up" services. This implies acquisition of equipment for both the program and for the office. Most of the latter will have been acquired by the first half of fiscal 1967; however, there will be gaps developing from time to time that will need to be filled. One immediate need is that for specialized equipment for the library. More details on this development should be available early in fiscal 1967, when the special consultant completes her survey.

UNIVERSITY OF MASSACHUSETTS
College of Arts and Sciences

A N N U A L R E P O R T

Period Covered: July 1, 1965 through June 30, 1966

Submitted to: President John W. Lederle

Submitted by: I. Moyer Hunsberger

I. Moyer Hunsberger
Dean, College of Arts and Sciences
August 1, 1966

PREFACE

For the convenience of the reader, all Tables containing statistical information are collected together in an Appendix, which follows the body of this report.

This report is intended to provide an overview of all important aspects of this College. Interested readers are urged to refer to the individual departmental reports for details concerning specific departments.

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I. BUDGET ALLOCATIONS

Account	FY 1964	FY 1965	FY 1966
03[1]	$ 45,000	$ 88,100	$ 115,462
10	11,600	17,775	23,775
11	1,200	1,000	1,000
12	13,000	20,955	20,800
13	100,000	131,725	186,425
14[2]	6,200	8,500	13,000
15	90,000[3]	143,825[5]	205,083
16	2,750	8,000	9,750
TOTALS	$ 291,750	$ 449,880[5]	$ 575,295
Salaries (01,02)	$3,426,447	$4,103,957	$5,424,364
(03)	-	89,000	139,641
Grand Totals	$3,718,197	$4,642,837	$6,139,300
Library	$ 285,000[4]	$ 206,500[6]	See footnote (7)

Footnotes

(1) Does not include faculty salaries paid from Account 03.

(2) Does not include allocations for telephone charges.

(3) Does not include special allocations made to individual departments

(4) Includes $250,000 in Bankhead-Jones money.

(5) Does not include $116,725 specially allocated from Federal funds.

(6) Includes $145,000 in Bankhead-Jones money.

(7) No allocations made to the College or to individual departments. Instead the Library honored virtually all requests for books.

II. ORGANIZATIONAL CHARTS

A. LIST OF DEPARTMENTS BY (UNOFFICIAL) DIVISIONS

Dean's Office

Chinese
History of Science
Japanese

Fine and Performing Arts	Humanities	Social Sciences	Biological Sciences
Art	English	Economics	Botany
Music	German-Russian[1]	Government[2]	Microbiology
Speech	History	Psychology	Zoology
	Philosophy	Sociology-Anthropology	
	Romance Languages		

Physical Sciences

Astronomy[3]
Chemistry[4]
Geology-Geography
Physics

Mathematics and Statistics

Mathematics
Statistics[5]

Footnotes

(1) To be split into two separate departments (German and Russian) as of September, 1966.

(2) As of September, 1965 the Bureau of Government Research became a part of this Department.

(3) As of September, 1966 Astronomy will become a part of the Physics Department. The Astronomy program will have a Chairman who is also Chairman of the Four-College Department.

(4) As of September, 1966 a separate Department of Biochemistry will be split off from this department.

(5) Has been operating as a separate unit without departmental status.

B. DEPARTMENTS AND DEGREES OFFERED

Department	Bachelor's	M.A. or M.S.	MFA	Ph.D.
Art	X	X	X	-
Astronomy[1]	X	-	-	-
Botany	X	X	-	X
Chemistry	X	X	-	X
Economics	X	X	-	X
English	X	X	X	X
Geology	X	X	-	X
Geography[2]	-	-	-	-
German-Russian	X	X	-	X
Government	X	X	-	X
History	X	X	-	X
Mathematics	X	X	-	X[4]
Microbiology	X	X	-	X
Music	X	-[5]	-	-
Philosophy	X	X	-	X
Physics	X	X	-	X
Psychology	X	X	-	X
Romance Languages	X	X	-	X
Sociology-Anthropology	X	X	-	X
Speech	X	X	X	-
Statistics[3]	-	X	-	-
Zoology	X	X	-	X
TOTALS	20	20	3	16

(1) Four-College department. The UMass astronomy program will become part of the Physics Department as of September, 1966.
(2) Part of the Geology department. (3) Does not have departmental status
(4) Ph.D. program initiated in September, 1965.
(5) Master of Music program to be offered starting September, 1966.

III. PERSONNEL

A. PROFESSIONAL PERSONNEL

Table 1 presents data on the number of professional positions filled, by rank, for the fall semester of each of the past three years.

During this period three half-time assistant deans and one full-time dean were added to the Dean's Office. The 134 faculty members (FTE basis) appointed to new positions between September 1963 and September 1965 represent an average of 67 per year. The increment between September 1965 and September 1966 will maintain this average (actual number of faculty in new positions is 69, as of July 25, 1966).

Between 1963 and 1965 the most striking change in the make-up of our faculty was the 6% decrease (from 28.4 to 22.2) in percentage of instructors. This was largely balanced by a 6% increase (from 32.8 to 38.9%) in percentage of Assistant Professors. Although the University staffing pattern calls for 45% of the faculty in the upper two ranks, in September 1965 our actual percentage was only 38.9, virtually unchanged from September 1963.

The increase (from 2 to 4) in number of staff assistants and staff associates, while encouraging, represents only a start in the right direction.

The increase (from 208 in 1963 to 341 in 1965) in number of teaching assistants (TA's) has been one of the most gratifying developments in this College. The number of postdoctoral research associates has hovered near 15 since 1963, but an increase is anticipated in the near future.

Table 2 presents a 3-year breakdown of faculty positions filled by department, by division, and by rank. Although Humanities added 43 faculty in the past 2 years, the percentage of the College faculty in the Humanities dropped 1.5% (from 37.2 to 35.7%); the percentage in Physical Sciences also dropped 0.7% (from 16.5 to 15.8%). On the other hand, the percentage of our faculty in the Social Sciences increased 1.8% (from 16.6 to 18.4%). The percentages of faculty in the other three divisions remained virtually constant between 1963 and 1965.

As of September 1965 this College had 5 departments with 35 or more faculty: English (68); Mathematics (44); Romance Languages (36); History and Chemistry (35 each). On the other hand, there were 3 departments with 10 or less faculty: Music (10); Microbiology (7); Philosophy (6).

Between 1963 and 1965 there were 5 departments which increased the size of their faculty by 50% or more: Government (by 100%, if the 3 faculty from Bureau of Government Research are included); Physics (by 57%); Art (by 56%) Economics (by 55%); and Romance Languages (by 50%). Between 1964 and 1965, both English and Mathematics added 10 faculty while Government added 9 (including 3 from the Bureau of Government

Research) and Physics added 7.

All of the preceding figures reflect only net additions to the faculty; the number of new faces is very much larger because of replacements of faculty who resigned or were terminated.

In September of 1965 only 5 departments in the entire College equalled (or slightly exceeded) the 45% specified by the University as the percentage of faculty which should be at the upper two ranks: Music, Government, Botany, Zoology, and Geology. On the other hand, two departments had more than 40% of their faculty at the Instructor rank: Economics (47%) and Speech (43%). Both of these statements emphasize the importance of more intensive efforts to recruit new faculty at the higher ranks.

Table 3 summarizes professional personnel actions taken during the past three years. The number of tenure appointments each year continues to decrease because of our post-autonomy tenure policy, under which we have a considerably longer period than formerly in which to make decisions on tenure. The 1967-68 year should see a decided increase in the number of tenure appointments. The number of sabbatical leaves has increased since 1963-64 somewhat more rapidly than the size of the faculty. During 1964-65 and 1963-64, this percentage was 84% and 68%, respectively.

B. NON-PROFESSIONAL PERSONNEL

Table 4 presents a three-year breakdown of both secretarial positions (SP) and technical positions (TP) by rank. Table 5 lists FP/SP ratios (fall of 1965) for each department and division, as well as the highest ranking secretarial position in each department. Table 6 compares both FP/SP and FP/TP ratios for the College for the past three years.

This past year will go down in the history of this College as the year in which a breakthrough was made with respect to providing sorely-needed secretarial and technical positions. The trend toward higher and higher FP/SP and FP/TP ratios has been reversed; for the first time in the history of the College these ratios actually declined (from 7.9 to 7.3 and from 14.2 to 13.6, respectively) between 1964 and 1965. Furthermore, 3 additional Principal Clerks (Grade 09) were provided for our largest departments, giving the College a total of 4 secretaries at that rank. Only 2 departments remain with a Junior Clerk Stenographer (Grade 03) as the highest-ranking secretarial position. Similar progress was made in meeting our need for technical positions. Our aim to reduce the FP/SP ratio to 5 and the FP/TP ratio to 10 appears to be a real possibility over the next few years. A continuation of these trends will increase the productivity of our faculty, will raise faculty morale, and will contribute significantly to our ability to recruit top-notch faculty.

An inspection of Table 5 reveals that 4 departments still had a FP/SP ratio of 10 or higher in 1965-66: Economics (17); Mathematics (11.3); German-Russian and Art (both 10.0). However, no Division of the College had a ratio higher than 9.8, and both Physical and Biological Sciences had ratios of less than 6.

We look forward to further improvement during the next academic year.

IV. STUDENTS

The academic year 1965-66 again saw a notable increase in the total teaching effort of the College as well as in the number of undergraduate and graduate majors. The student credit hours (SCrH) taught in this College increased (over last year) by 13.5% (from 105,358 to 119,620); this slightly exceeds the University's increase (over last year) of 12% in the Undergraduate enrollment. The number of undergraduate students majoring in Arts and Sciences increased 9% (from 4647 to 5060) while the number of graduate majors increased slightly more than 26% (from 909 to 1148).

Despite these significant increases in total number of students, 1965-66 is the first year in the last eight in which the percentage of University undergraduates majoring in Arts and Sciences decreased with respect to the preceding year. This slight decrease (from 58.2 to 56.6%) was more than offset by the increase (from 49 to 51.3%)in percentage of University graduate students majoring in Arts and Sciences departments.

Table 7 presents comparative enrollment data for all colleges of the University and for each class since 1955, when the College of Arts and Sciences was established. Table 8 presents the same data expressed in terms of percentages. Since 1955, the number of undergraduate majors in our College has virtually trebled (from 1721 to 5060), while the graduate enrollment has increased at least sevenfold. In September of 1965 Arts and Sciences had 1185 more majors than all the other schools and colleges on the Amherst campus taken together. It is interesting to observe that Arts and Sciences majors roughly equalled the combined enrollments of Amherst, Mt. Holyoke, and Smith Colleges.

Table 9 shows the SCrH and student contact hours (SCoH) taught by each department during each semester of 1965-66; the number of master's and Ph.D. candidates in each department (fall semester) also is recorded. We have found many obvious errors in the IBM report of SCoH. Many more errors in the IBM report probably remain undetected. We have greater faith in the reliability of the SCrH figures, which were compiled from departmental reports to the Dean's Office. As is usually the case, the total number of SCrH decreased slightly from the fall to the spring semester (119,620 to 116,522).

Below is shown the percentage breakdown of our total teaching effort (SCrH basis) among the 6 divisions of this College for the past 2 years:

Division	% of Total SCrH Sept. 1964	Sept. 1965
Fine & Performing Arts	6.9	6.8
Humanities	36.0	37.6
Social Sciences	23.7	22.9
Biological Sciences	9.8	8.8
Physical Sciences	13.3	12.9
Mathematics & Statistics	10.3	11.0
Totals	100.0	100.0

From the above tabulation it is seen that the percentage of the total College teaching performed by 4 divisions decreased by varying amounts (from 0.1 to 1.0%), while that of Humanities and Mathematics-Statistics increased (by 1.6 and 0.7%, respectively). Humanities and Social Sciences together absorbed about 60% of the College's total teaching effort in each of the last two years.

Four departments taught more than 10,000 SCrH during the fall semester of 1965-66: English (18,534), Mathematics (11,841), History (11,667), and Psychology (10,533). Psychology is a new addition to the "10,000 SCrH Club" as of September, 1965. It is worth noting that the English department taught as many SCrH as would be taught by an entire College with an enrollment of 1235 students!

Table 10 records the three-year history of undergraduate and graduate student enrollment by majors for the fall semester. The largest percentage increase of undergraduate majors during this period took place in Music (from 14 to 34 students), undoubtedly because of the strenuous recruiting efforts of Professor Bezanson and his colleagues. Nearly as large a percentage increase of undergraduate majors took place in Philosophy (from 23 to 43 students), which also experienced an increase from 7 to 29 graduate students. Undergraduate majors in Zoology increased, from 159 (Sept 1963) to 349 (Sept 1965). The Art Department experienced large increases during the same period in both undergraduate (from 75 to 113) and graduate (from 7 to 47) majors, the latter increase reflecting interest in the recently established M. F. A. program.

In September 1965 the English department had 921 undergraduate majors; three other departments had more than 500 majors; Government (584), History (579), and Mathematics (549). At the other end of the scale, eight programs in Sept 1965 had less than 50 undergraduate majors: Philosophy (43), Microbiology (42), Geology (41), Music (34), Botany (33), Russian (31), Anthropology (23), and Astronomy (16).

Another noteworthy change was the decrease in the number of students in the pre-dental, pre-medical, and pre-veterinary programs (combined as pre-professional in Table 10). The reason for this decline is that students are no longer accepted in the pre-professional programs before the sophomore year. Part of the large increase in Zoology majors resulted from this decrease in pre-professional majors. No other program experienced a decrease in number of majors.

Three departments had more than 100 graduate majors in Sept 1965: Chemistry (149), English (148), and Psychology (118).

Table 11 presents the breakdown of FTE students (S), by department and division, for the past three years. The quantity S is one-fifteenth

of the total SCrH (as given in Table 9). Note in particular that for September of 1965 the FTE student enrollment in Arts and Sciences is almost 8,000, whereas the number of Arts and Sciences majors (graduate and undergraduate) is only 6200 (head count basis). To put it another way, about 30% of the College's teaching is for students who major in another college or school.

Table 12 summarizes the student-to-faculty ratios by department and division both with (S/F*) and without (S/F) the graduate teaching assistants (TA's). The number of TA's (FTE basis) is defined as the number of TA's who could have been supported by the allocated funds at $2200. per assistant. The S/F* ratio is a refined student-to-faculty ratio in which F* is computed by adding 1/3 of the number of TA's (FTE basis) to the number of FTE faculty positions. This amounts to equating three TA's to one instructor; while admittedly arbitrary, this assessment is believed to be fairly accurate. As always, S represents the number of FTE students, i.e. one-fifteenth of the SCrH taught.

Among the six divisions, Social Sciences (22.0), Humanities (17.8), and Math-Stat (17.2) had the highest S/F ratios, Fine Arts (13.5) had the lowest, and Biological Sciences (15.3) and Physical Sciences (14.2) had intermediate values.

Among the individual departments, two had S/F ratios of 25 or higher - Psychology (30.5) and Sociology (26.1) - while three departments had S/F ratios of 10 or lower - Russian (10.0), Physics (9.8), and Microbiology (6.8). Six departments (Music, Speech, Philosophy, Romance Languages, Psychology, and Sociology) had somewhat higher S/F ratios in Sept 1965 than in Sept 1964.

By way of comparison, when TA's were incorporated into the faculty count as described above, the two highest S/F* ratios were 17.4 (Social Sciences) and 15.4 (Humanities) while the two lowest were 10.6 (Biological Sciences) and 10.2 (Physical Sciences).

Among the individual departments, the two highest S/F* ratios were 23.6 (Psychology) and 20.0 (History), while the two lowest were 5.1 (Microbiology) and Physics (7.2).

Over the entire College the student-to-faculty ratio was 17.2 (without TA's) and 13.9 (with TA's) in Sept of 1965. A strong effort will be made to recruit faculty for Sept 1967 with a view to reducing the S/F ratio in departments such as Psychology, Sociology, and History.

The trend of S/F ratios in this College for the past four years is clearly evident from an inspection of Table 13. Despite the above-mentioned increases in enrollment, it is most gratifying

to report that our tremendous faculty recruiting effort for Sept 1965 has had the effect of definitely restoring the downward trend of the S/F ratios after an increase had occurred between Sept 1963 and Sept 1964. Thus, the S/F ratio of 18.1 in Sept 1963 rose to 18.8 in Sept 1964 but then dropped down to 17.2 in Sept 1965.

Table 14 presents a quantitative tabulation of the "product" of this College for the past 3 years, i. e. the number of students who have received degrees. For the first time in history, degrees were awarded during 1965-66 to more than 1000 students (actually 1092) who majored as undergraduates or graduates in some department in Arts and Sciences. This represents a 22% increase over 1964-65 and a 45% increase over 1963-64. The percentage breakdown of the various degrees for the past 3 years is shown below:

	1963-64		1964-65		1965-66	
Bachelor's	81.4		79.9		74.2	
Master's	15.5)		16.4)		22.0)	
Ph.D.	3.1)	18.6	3.7)	20.1	3.8)	25.8
Totals	100.0		100.0		100.0	

The above tabulation clearly shows the trend toward a higher proportion of graduate degrees, as must be the case if the University is to achieve distinction. Thus, the ratio of Bachelor's to advanced degrees decreased from 4.4 in 1963-64 to 2.9 in 1965-66. While we do not anticipate any major changes in these overall ratios in the near future, the percentage of Ph.D's awarded certainly should increase while the percentage of Master's degrees probably will decrease.

Certain other trends seem to deserve mention. The number of B.S. degrees has remained virtually stationary for the past 3 years, while the number of B.A.'s has increased sharply (by virtually 200). Thus, the ratio of B. A. to B. S. degrees increased from 3.5 in 1963-64 to 5.0 in 1965-66.

The vigorous growth of the new MFA program is shown by the fact that 11 degrees were conferred during 1965-66. Particularly heartening is the virtual doubling (from 23 to 42) in Ph.D. degrees conferred over the past three years. During each of the past 2 years Chemistry has produced the most Ph.D.'s (total of 26) while Psychology has been a close second (total of 23). Zoology is third with a total of 11 Ph.D.'s in the past two years. During this same span these three departments accounted for 80% of the total Ph.D. production of this College. In the near future the Humanities departments are expected to award a substantial number of doctorates.

IN SUMMARY, OUR OVERALL SERVICES TO STUDENTS INCREASED BY ABOUT 40% SINCE 1963-64, i.e. AT A RATE OF ABOUT 20% PER YEAR. TO BE MORE SPECIFIC, THE UNDERGRADUATE MAJORS INCREASED BY 30% (FROM 6882 TO 8935), THE GRADUATE MAJORS BY 82% (FROM 632 TO 1148), THE FTE STUDENTS BY 39% (FROM 5758 TO 7990), AND THE DEGREES AWARDED BY 45% (FROM 753 TO 1092).

One aspect of our student clientele which has escaped attention in previous reports is that pertaining to academic dismissals. Nevertheless, dismissals are complementary to degrees awarded in that both aspects must be considered in order to obtain a complete picture of what happens to our undergraduate student body.

Table 14A summarizes undergraduate academic dismissals, by department and division, for both semesters of 1965-66. Also shown is the percentage of dismissals in each major program. For reference, similar figures are included for the other schools and colleges in this University.

Of the 653 students dismissed from the University, 323 (49.5%) were majoring in Arts and Sciences. Our College's dismissal rate (6.4%) was noticeably lower than the rate for all professional schools taken together (8.6%) and somewhat less than the overall University rate of 7.3%.

The overall University dismissal rate of 7.3% breaks down to about 10% for men and 4% for women. By classes, the breakdown is: Seniors - 1.3%; Juniors 5.7%; Sophomores - 9.5%; Freshmen - 14.5%. The special Summer-Spring Freshmen had a 23.2% dismissal rate. (preceding figures are from a summary prepared by the Registrar's Office.)

In this College, Social Sciences (7.7%) and Fine Arts (7.1%) had the highest dismissal rates, whereas Humanities (5.6%) and Physical Sciences (5.0%) had the lowest dismissal rates. Among our departments, Economics (14.1%) had by far the highest dismissal rate, whereas no Classics or German majors were dismissed. The next lowest rates of dismissals were in Spanish (1.5%) and pre-medical (1.9%). Three major programs (Russian, Chemistry, and French) had dismissal rates between 3.2% and 3.6%.

V. FACULTY PUBLICATIONS, RESEARCH PROJECTS, AND OTHER PROFESSIONAL ACTIVITIES

A. PUBLICATIONS

The 41 books and monographs authored or edited by faculty members of this College and published during 1965-66 are listed by division, department, and author in Table 15. Not counted in this total, but listed in Table 15, are a number of re-publications and translations of books published earlier. This total of 41 should be compared with the 31 published during 1964-65 and 28 during 1963-64.

It is noteworthy that the English Department faculty was responsible for 12 books, Government for 6, Romance Languages for 3, and German-Russian for 3. Six of these books were published by the University of Massachusetts Press and five by other university presses.

Since July 1, 1964 the Mathematics faculty has published 42 research articles and 2 expository articles, while the Statistics faculty has published 3 articles.

Those departments which conduct laboratory research (Psychology - 44; Chemistry - 37; Physics - 16; Botany - 13; Microbiology - 14;and Zoology - 20) together accounted for a total of 144 research articles plus 7 chapters in books during 1965-66. In addition, the Government faculty authored 11 articles, while Sociology published 9 articles plus 2 chapters in books. The Music and Art faculty participated actively in musical performances and in art exhibitions, respectively.

B. SPONSORED RESEARCH AND SERVICE PROJECTS

Sponsored research and service - as measured by the total face value per year of all projects - amounted to nearly $2.5 million during 1965-66 (for details, see Table 16). This represents an increase of nearly $1 million over the preceding year and is about 5 times larger than in 1960-61.

The Physical Sciences division accounted for virtually $1 million worth of sponsored research projects, while the Biological and Social Sciences were next with $0.71 million and $0.42 million, respectively. Thanks largely to the NDEA grant of $152,000 for the History Summer Institute, the Humanities division received $.21 million in grants. Mathematics and Fine Arts received $49,000 and $44,000, respectively.

Each of the following four departments enjoyed more than $300,000 worth of sponsored research projects: Chemistry ($593,000), Zoology ($367,000), Physics ($318,000), and Psychology ($317,000). Particularly noteworthy is the rapid increase in sponsored research in the Physics department over the past 2 years. The average size of the 16 grants in Physics was nearly $20,000, while the average size of the 20 grants in Zoology was $18,400. Five other departments (Speech, Chemistry, Microbiology, Botany, and Psychology) had grants whose average face value per year exceeded $10,000 during 1965-66.

If departments are compared on the basis of sponsored research support per faculty member, Microbiology again leads the College with $19,000 of support per faculty member. Other departments with $15,000 or more of support per faculty member include Chemistry, Zoology, Botany, and Physics.

Most of the research projects in the non-science departments are supported by the U Mass Graduate Research Council, and the number of grants made by this Council has increased at a most heartening rate during the past few years. Continuation and expansion of this support is essential if our non-science departments are to prosper. No university can be great if it is not outstanding in the non-sciences.

C. OTHER PROFESSIONAL ACTIVITIES OF THE FACULTY

These are so numerous and so diverse that a meaningful summary is difficult to provide. However, Table 16A lists by departments and division those faculty who are editors or are on the editorial boards of scholarly publications. Important offices in professional societies, distinguished consultantships, etc, also are included. While every effort was made to make this list complete, a certain selection was inevitable based on the subjective (and possibly uneven) definition of the word "important".

Special attention is called to the election of Professor H. J. Weigand of our German Department as President of the Modern Language Association of America. Professor B. H. Honigberg of the Zoology Department also has been elected President of the American Society of Protozoologists. Our Romance Languages Department is honored by having Professor I. Rothberg as Editor-in-chief of Hispania and Professor S. Weiner as Managing Editor of The French Review. Some 23 other faculty members of this College are either editors, associate editors, or members of the editorial board of at least one publication in their field. Professor M. M. Gordon of the Sociology Department has been named General Editor of the Prentice-Hall series of books on Minorities in American Life. Professor P. F. Norton, Head of the Department of Art, has become a Director of the Society of Architectural Historians. Professors J. Chametzky and J. H. Hicks (both of the English Department) have been co-editors of the Massachusetts Review, while Professor R. Tucker (also of English) served as Managing Editor. Professor M. Cantor (History) continued to serve as Editor of Labor History, while L. Manheim (English) and E. Manheim (Romance Languages) served as Editor and Associate Editor of Literature and Psychology. The following faculty are Associate Editors with the indicated responsibilities: A. R. Duckert (English) - Names; A. E. Goss (Psychology) - Psychological Reports; R. Taylor (Head of Romance Languages) - Renaissance Society of America.

VI. MAJOR ACCOMPLISHMENTS AND SPECIAL PROGRAMS

A. ASSOCIATE DEAN

The past two years have seen a major reorganization in the delegation of duties within the Dean's Office. The various assistant deans have been assigned some of the duties previously performed either by the Associate Dean or the Dean. As detailed on the following sheet, the Associate Dean is responsible for the curriculum, for buildings and space, for coordinating the work of the Assistant Deans, and for a variety of miscellaneous duties (including summer programs for incoming freshmen).

For each of the past 2 years Dean Wagner has performed the increasingly complex job of relocating departments so that faculty in a given department stay together as the department increases in size. He has accomplished this very difficult job with a minimum of complaints from the departments.

DUTIES OF ASSOCIATE DEAN ROBERT W. WAGNER (1965-66)

I. Buildings and Space

(a) Plans for new buildings: Chairman of Building Committees for Bartlett East; Addition to Machmer Hall; Bartlett West; Fine Arts; Morrill, Section V.

(b) Renovation of old buildings.
(c) Assignment of space to departments.
(d) Forecasts of space needs.
(e) Supervision of Project Maintenance.
(f) Liaison with Provost's Planning Officer.

II. Curriculum

(a) Chairman of College Curriculum Committee.
(b) New courses and programs.
(c) Scheduling problems, including 4-college courses.
(d) Catalogue copy.
(e) Course enrollment summaries.
(f) Grading practices.

III. Academic Affairs of Students

(a) Evaluation of transcripts of transfer students and returning students.
(b) Adviser to unclassified students.
(c) Liaison with Assistant Deans.
(d) Coordination of Chief Advisers in all departments.
(e) Student Faculty Nights.
(f) Grade changes.
(g) Recommendations for students who have graduated or left college.
(h) Summer programs for incoming College of Arts and Sciences freshmen.

IV. Miscellaneous

(a) Administrative supervision of teachers not assigned to departments, e.g. Chinese and Japanese.
(b) Arrangements for meetings of College Faculty and of College Executive Committee.
(c) Recorder for College Executive Committee.
(d) Assist Dean with committee appointments, correspondence.
(e) Represent Dean at various meetings.
(f) Act for Dean when Dean is off campus.

B. ASSISTANT DEANS

During this second year of work by the Assistant Deans of the College of Arts and Sciences there was some extension of both their routine and their innovative functions. A subsequent sheet provides a composite list of their duties.

Harry Schumer, of the Psychology Department, was responsible for the academic affairs of the Arts and Sciences Class of 1966. In June, he ended his two-year tour of duty as half-time Assistant Dean. In September of 1966 Gerald W. McFarland, of the History Department, will assume similar duties for the incoming Class of 1970. Jay Savereid (Speech Department) and Leonta Horrigan (English Department) continued their duties with regard to the Classes of 1968 and 1967, respectively. The assignments of these persons manifest a continuing commitment to the idea that the administration of undergraduate academic affairs is kept in perspective by the half-time continuation of faculty activities and responsibilities on the part of the assistant deans.

Starting in September of 1965, Duncan Rollason (Zoology Department) became a full-time Assistant Dean. Half of his time was devoted to the academic affairs of the Class of 1969, the other half being spent on a melange of duties which will be described later.

Much of the time of the assistant deans went into the interpretation and application of the academic regulations of the University and of the College. Requests for exceptions to certain University regulations and to all college requirements were normal accompaniment to the various academic seasons. Between September and June, 412 decisions were made on such requests. The most frequent applications were for late withdrawal from courses, for relief from certain graduation requirements and exceptions to the minimum load requirement. More trivial decisions, not included in the 412, were in relation to such rules as those governing "Incomplete" grades and academic overloads.

The College office reviewed the status of all Arts and Sciences members of the Class of 1966 in relation to College requirements for graduation, with either the B.A. or B.S. degree, and notified students of their deficiencies. The students, who had not at the end of their junior year met the requirements of the College, were again reviewed during their senior year in order to certify them for graduation if the requirements were being met.

The student transferring into the University came to the College for evaluation of his credits, earned elsewhere, in relation to the College graduation requirements. Students proposing to take courses at other colleges in the United States and in foreign countries came for advice and commitment regarding their plans.

Students suffering academic dismissal commonly consulted assistant deans as they were advised to do. When those students sought reinstatement or readmission, their application materials were prepared by the assistant deans and forwarded to the University Board of Admissions and Records with a covering letter which was usually based in part on discussion with the student.

Some students came to the College office for advice regarding a Change of Major and such other academic questions extending beyond the single department and the single faculty adviser.

The other non-routine part of the work of the assistant deans was less tangible and, quite possibly, more important. They worked individually and together on more general and long-range problems and solutions. An analysis was made of the changes of major during the academic year 1964-65. Certain striking conclusions were immediately apparent. A very large number of freshmen and sophomores made changes, roughly forty percent of the members of each of those classes. Information on the direction of the changes is available, and there are responses which suggest that the student who changes his major is most likely to consult another student or a faculty member other than his stated adviser.

Student-Faculty Evenings were scheduled on four evenings during the year when all other meetings were excluded from the University calendar. Departments met with their majors on those evenings with a great variety of programs and aims. The success of the meetings was uneven, but there was evidence that appreciable headway was made in acquainting the student with some of the meaning of his major field of study and helping him to identify himself with the intellectual concerns and with the students and faculty of his department. The gains were judged to be great enough to warrant a continuation of the program on a reduced scale.

The departmental chief-advisers became, in this second year of their existence, more influential in improving the advising of students. They were instrumental in enabling the College to notify each freshman, at the time of his arrival, of the name of his faculty adviser. They were increasingly the expected and actual source of accurate and current information regarding academic questions associated with advising. They improved the quality of the departmental record-keeping on their majors.

Deans Hunsberger and Wagner and the assistant deans met for lunch and discussion of College problems with selected representatives of the four undergraduate classes on an irregular basis. At one of those meetings Dean Hunsberger gave book awards to the three students who had done notably good work in the Honors sections of the sophomore English course.

A consultative panel of twelve students was named to meet with the newly-appointed Curriculum Study Committee of the Faculty. The Assistant Deans were also invited to sit with that committee as resource people.

The assistant deans continue to sit as members of the Curriculum Committee of the College.

The meetings with assistant deans of the other colleges and schools in the University were infrequent but did serve as devices for discussion of common problems.

Study was initiated of certain matters which will relate to the work of the Curriculum Study Committee; these include the Honors Program, academic advising, and the teaching of writing effectiveness.

Because of a concern, first mentioned by students in the luncheon meetings with the deans, for the failure of the University to present its serious side to new freshmen during Orientation Week, a program of lectures has been scheduled by the College for the Orientation Week in September, 1966.

Half of Dean Rollason's time was devoted to duties which are detailed on a subsequent sheet and which, perhaps, can best be described as those of a Dean of Administration for the College. In this capacity he has freed the Dean to devote more time to faculty matters. In addition, he has greatly strengthened the ability of the Dean's office to review and evaluate a whole host of programs and policies of the College. It should be emphasized that, without his patient and skillful guidance, the so-called Freiburg program would not have reached the point of being ready to start in September of 1966. It seems clear that his many duties as Dean of Administration will soon require essentially all of his time rather than half of his time.

COMPOSITE DUTIES OF HALF-TIME ASSISTANT DEANS (1965-66)

1. Advise students regarding:
   (a) Transfer into College of Arts and Sciences.
   (b) Transfer out of College of Arts and Sciences and out of the University.
   (c) Dismissals, reinstatements, readmissions.
   (d) Study at other United States colleges.
   (e) Study abroad.
   (f) Exceptions to academic regulations: Graduation requirements of College of Arts and Sciences, withdrawal from courses, load requirements.
   (g) Choice of major and other more general academic advising.
2. Investigate and decide on applications for exceptions to academic regulations.
3. Interview students (often with their parents) who have been dismissed from the University for academic deficiency; write recommendations to the Board of Admissions and Records.
4. Supervise record-keeping for all students in the College of Arts and Sciences.
5. Administer University academic regulations, especially those involving adding and dropping of courses.
6. Administer College academic regulations and develop improved procedures and forms.
7. Evaluate transfer courses, counsel transfer students, and investigate errors and omissions in their records.
8. Occasional investigation of student grievances against faculty.
9. Untangle problems created by misadvising, errors in records, etc.
10. Approve special programs: course overloads, study abroad, etc.
11. Revise College of Arts and Sciences check-list of graduation requirements to keep it up-to-date.
12. Member of College of Arts and Sciences Curriculum Committee.
13. Consultant to College of Arts and Sciences Curriculum Study Committee.
14. Send letters of commendation to students for jobs well done.

15. Study College problems with a view to initiating programs and procedures such as:

    (a) Departmental Chief Advisers Program.
    (b) Choice of major programs.
    (c) Student-Faculty Evenings.
    (d) Dean's Book Awards.
    (e) Deans' meetings with students.
    (f) College and departmental honors programs.
    (g) Teaching of required courses.
    (h) Special cultural programs for Freshmen Orientation Week.
    (i) Relations of College of Arts and Sciences with Registrar, Deans of Students, etc.
    (j) Relations with Collegian.

16. Participate in University association of assistant deans to discuss common problems.

17. Maintain liaison with departmental chief advisers.

18. Keep an ear to the ground so as to be able to alert proper people to potential academic problems.

19. Attend teas, luncheons, coffee-hours, etc., especially on invitation of academic honor societies.

DUTIES OF ASSISTANT DEAN H. DUNCAN ROLLASON (1965-66)

1. Academic Dean for the Class of 1969.
2. Secretary for meetings of Department Heads.
3. In charge of Freiburg Program.
4. The real "Acting Head" of German-Russian.
5. Review and approve applications for:
   a) Faculty Growth Grants.
   b) Faculty Research Grants from Research Council and from outside granting agencies.
6. Review of duties and qualifications of teaching assistants.
7. Preparation of ten-year report of College of Arts and Sciences.
8. Updating of handbook for new faculty.
9. Review and approval of all appointments made on research grants.
10. Review of minutes of faculty meetings of all departments in the College of Arts and Sciences.
11. Liaison with Academic Advisory Council and other college committees.
12. Publicity and news releases.
13. Assist Dean with:
   a) Preparation of budget and overseeing of expenditures.
   b) Preparation of Annual Report.
   c) Correspondence.
14. Member of:
   a) College of Arts and Sciences Curriculum Committee.
   b) Faculty Senate.
   c) Summer Session Committee.
15. Represent Dean at miscellaneous meetings and functions.
16. Review of miscellaneous reports sent to Dean.
17. Accreditation Committee for New England Association of Colleges and Secondary Schools.
18. Review and Approval of Non-Professional Appointments.

C. CONVERSION OF CLASSROOMS TO OFFICES

In order to meet the need for offices for new faculty and teaching assistants, 28 classrooms in 4 different buildings were converted to offices by the installation of partitions during the summer of 1965 (see table below). The one big problem was the slowness in

Building	Classrooms Lost	Offices Gained	Persons Officed
Bartlett	14	43	91
Machmer	10	42	95
Draper	2	8	13
School of Bus. Adm.	2	7	11
Totals	28	100	210

completing the job and in getting the offices furnished. The high density of occupancy (an average of over 2 persons per office) reflects the fact that some offices were used for one faculty member, some for 2 faculty members, and some for 3,4, or 5 teaching assistants.

The acute need for additional offices for September of 1966 will be met if all of the moving required to utilize Arnold House can be accomplished on schedule.

D. VISITS TO OTHER INSTITUTIONS

During the last 2 weeks of October Dean Hunsberger made 2-day visits to each of the following mid-western universities: Washington University, Wisconsin, Chicago, Iowa, Northwestern, and Ohio State. On each campus he consulted at length with the Dean (or Associate Dean) of Arts and Sciences as well as with faculty members and department heads in some or all of the following departments: Economics, German, Russian, Philosophy, Sociology, and Speech. This was the most valuable trip Dean Hunsberger has ever taken. By comparing notes with other Deans, he accumulated much useful information and greatly broadened his perspective; in addition, the names of possible candidates for various departmental headships were collected.

Similar trips to various universities also were taken by the department heads listed below:

R. L. Gluckstern - Harvard, Yale, Princeton, Columbia, Cornell, MIT, Pennsylvania, Johns Hopkins, Stony Brook

S. Shapiro - Michigan, Michigan State, Minnesota

W. L. Strother - Florida, Florida State, Emory, Texas, Rice

W. C. Havard - Tulane, LSU, Duke, Virginia, North Carolina, Vanderbilt

Trips of this kind are of prime importance if we are to become one of the better state universities in this country. By comparing notes after returning to this campus, the above persons obtained invaluable knowledge of new developments on a large number of campuses. This knowledge helped particularly with respect to recruitment of new department heads and new faculty.

E. NEW DEPARTMENT HEADS AND NEW DEPARTMENTS

The College was most fortunate in obtaining the services of Professor Ronald F. Reid (formerly of Purdue) as the new Head of the Speech Department, effective February 1, 1966. During his first semester on campus Professor Reid has proved to be an effective recruiter of faculty. He also has shown commendable skill in reorganizing the internal affairs of his department. Above all, he has exhibited a real capacity for hard work and an obvious dedication toward improvement of all aspects of the Speech Department.

During 1965-66 the College also succeeded in recruiting the following persons to serve as Heads of Departments or as Chairmen of various new programs, effective in September of 1966:

Name	Former Institution	Administrative Duty at University of Massachusetts
Bruce A. Aune	Pittsburgh	Head of Philosophy Department
Wolfgang Bernhard Fleischmann	Univ. of Wisconsin-Milwaukee	Chairman of Comparative Literature Program (effective February 1967)
William M. Irvine	Harvard	Chairman of Four-College Astronomy Department
Everett S. Lee	Pennsylvania	Head of Department of Sociology-Anthropology
John M. Maki	Univ. of Washington	Chairman of newly-created Program of Asian Studies and Director of newly-created Center of Asian Affairs
Wolfgang Paulsen	Connecticut	Head of German Department
Jack M. Posin	Stanford	Head of newly-created Department of Russian
Edward W. Westhead	Dartmouth	Acting Head of newly-created Biochemistry Department

Because Professors Maki, Fleischmann, and Irvine each have responsibility for major programs, they will be accorded the status of department heads. Since Biochemistry and Russian represent new departments, it should be noted that 5 additional people - making a total of 28 (including Deans Hunsberger, Wagner, and Rollason) - will be invited to meetings of department heads next year.

During 1965-66 the search for a new Department Head in Economics again proved fruitless. In addition, for September of 1967 it will be necessary to locate a new Head for the Department of Psychology, since Professor Neet has expressed a desire to be relieved of his administrative tasks.

F. FACULTY SALARIES

The following two sheets portray the history of faculty salaries in this College for the past 5 years in both tabular and graphical form. The so-called autonomy legislation was passed during the summer of 1962, and the following sheets compare the last pre-autonomy year (1961-62) with the first four post-autonomy years (1962-66).

During this 5-year period the average salary for full professors has increased by more than $4500 and the maximum by about $8000. Lesser increases have occurred at the lower ranks. Based on last year's average salary figures, our College earned a "B" rating (on the AAUP scale) for the upper two ranks and an "A" for the lower two ranks.

Although the maximum faculty salary the University can offer increased, as of July 1, 1966, from $21,372 to $23,306, our most pressing need is to have the salary limit removed, at least for a certain percentage of our total faculty positions.

G. FACULTY RECRUITMENT

Tables 17 and 18 summarize the results of our faculty recruitment for September, 1966, while Table 19 summarizes the unfilled positions anticipated for September, 1966. All of these tables refer to the situation as of July 25, 1966.

In a word, all 69 new positions* have been filled; in addition, 48 old positions (which became vacant because of resignations or terminations) also were filled. Thus, the most valid measure of our recruiting effort is obtained by adding the two previous figures to give 117 positions filled. Since some 13 of these positions were filled with persons who had earlier been on our faculty (as temporary replacements, etc.), there will be about 104 faculty positions in our College occupied by new faces in September of 1966. As detailed in Table 19, our College will have less than 10 vacancies in September of 1966. By the time the roster is complete there well may be fewer than 5 vacancies. We regard this situation with considerable satisfaction, particularly since our College will have a total of more than 520 faculty positions in September of 1966.

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* These include 13 new positions assigned for September, 1965 but not filled until September, 1966.

COLLEGE OF ARTS & SCIENCES SALARIES PAID

Professors	Maximum	Median	Minimum
1961-62	12,896	10,387	8,502
1962-63	14,144	11,655	9,256
1963-64	18,111	13,858	12,246
1964-65	19,713	14,900	13,098
1965-66	21,000	15,288	12,477 (11,484)

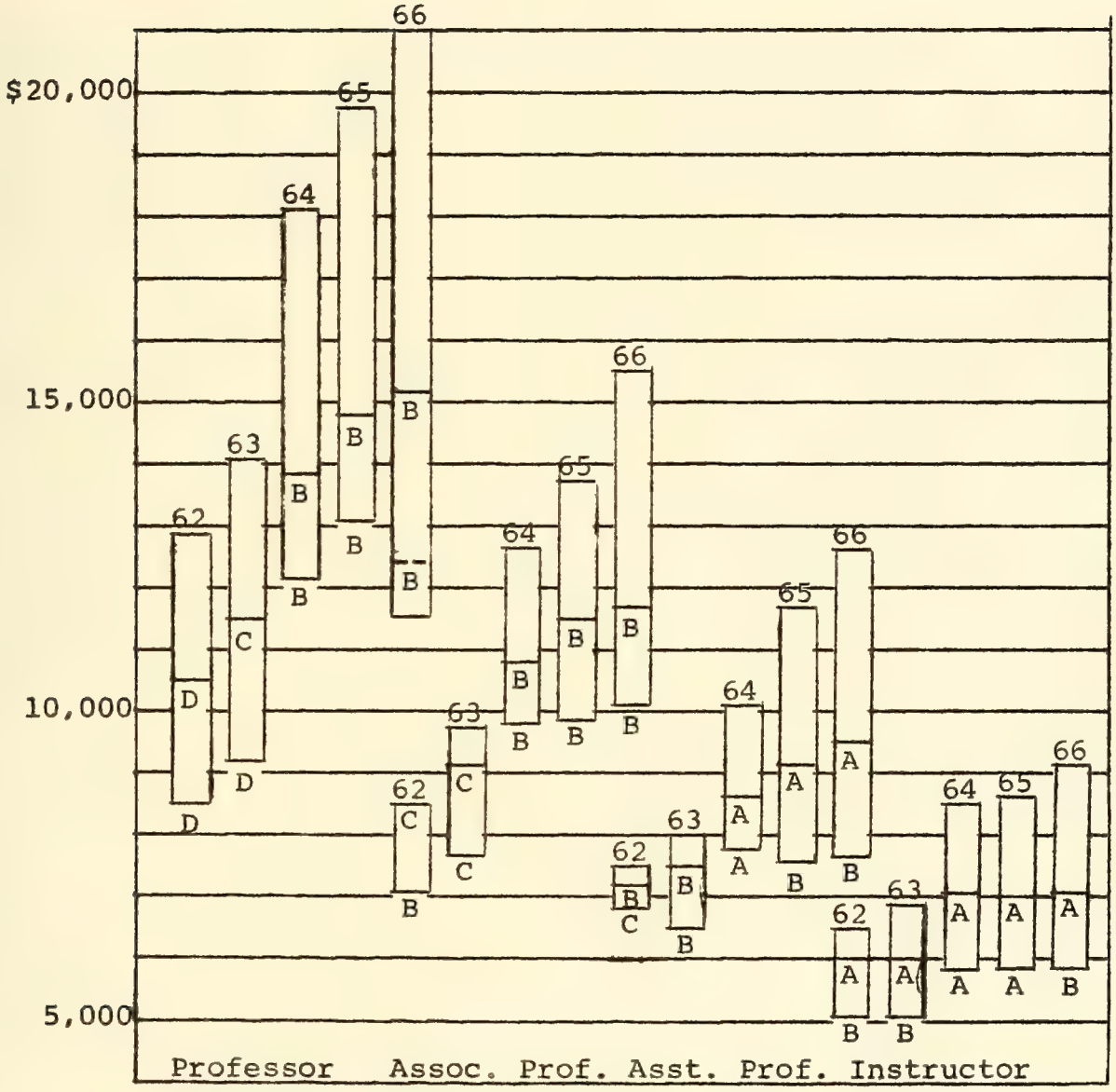
Associate Professors	Maximum	Median	Minimum
1961-62	8,684	8,684	7,124
1962-63	9,776	9,256	7,748
1963-64	12,719	10,826	9,739
1964-65	13,858	11,484	9,939
1965-66	15,574	11,819	10,168

Assistant Professors	Maximum	Median	Minimum
1961-62	7,527	7,254	6,981
1962-63	8,060	7,527	6,435
1963-64	10,353	8,795	7,880
1964-65	11,819	9,253	7,467
1965-66	12,719	9,596	7,508

Instructors	Maximum	Median	Minimum
1961-62	6,484	6,006	5,070
1962-63	6,981	6,006	5,070
1963-64	8,567	7,165	5,820
1964-65	8,795	7,165	5,964
1965-66	9,053	7,165	5,964

FACULTY SALARY RANGES (1962-1966)

COLLEGE OF ARTS AND SCIENCES



Legend: Salaries are those actually paid in March of the indicated years. Letters (A, B, C, D) indicate A.A.U.P. ratings for average (within the bar) and minimum (below the bar) salaries. In 1962, the average salary and the maximum salary for associate professors were the same.

A special effort was made to recruit at the two upper ranks. As a result, for the first time in our history we recruited as many as 18 full professors, distributed among 13 departments. We also recruited a considerably lower percentage of instructors than ever before.

Of the 117 positions filled, 55 were in the Humanities, 19 in the Fine Arts, 15 in the Physical Sciences, 14 in Mathematics, 8 in the Biological Sciences, and 6 in the Social Sciences. The small number of faculty recruited in the Social Sciences reflects the fact that during the past year three of these departments (Economics, Sociology, and Psychology) were in the process of undergoing a change in the Headship and the remaining department (Government) had performed a large recruitng effort the year before.

The largest single recruiting effort was performed by the Romance Languages Department, which added 16 new faculty (2 full professors, 4 associate professors, 1 assistant professor, and 9 instructors) to its staff. However, only 6 of the 16 will occupy new positions. The recruiting effort in Physics and Astronomy also was noteworthy in that 10 new faculty (2 full professors, 4 associate professors, and 4 assistant professors) were appointed. Mathematics appointed some 13 new faculty, of which 9 were at the Assistant Professor rank. English appointed some 15 faculty of which 13 were Assistant Professors. Chemistry and German each appointed 2 new full professors. Speech appointed 11 new faculty, of which 10 were at the lower two ranks.

H. FULBRIGHT AND SIMILAR AWARDS

The following faculty from the indicated departments have received Fulbright or similar awards to spend the 1966-67 year in the countries listed:

Name	Rank	Department	Country
Chametzky, J.	Associate Professor	English	Yugoslavia
Langland, J.	Professor	English	Europe[1]
Porter, D.	Assistant Professor	English	Italy
Fenton, J.	Professor	Government	Belgium
DePillis, M.	Assistant Professor	History	Germany

(1) Grant received from National Council of the Arts.

J. FACULTY GROWTH GRANTS

We are pleased to report that 16 faculty in our College were awarded Faculty Growth Grants by the University to support their research, scholarly, or creative work during the summer of 1966:

Name	Rank	Department
Berlin, N.	Assistant Professor	English
Born, J.	Assistant Professor	German
Della Grotte, J.	Assistant Professor	History
DePuy, Ida B.	Assistant Professor	Romance Language
Duval, R.	Assistant Professor	Romance Languages
Hart, R. A.	Assistant Professor	History
Hendricks, J.	Instructor	Art
Holesovsky, V.	Assistant Professor	Economics
Johnston, W.	Assistant Professor	History
Kressy, C. M.	Instructor	Art
McFarland, G.	Assistant Professor	History
Niedzielski, H.	Assistant Professor	Romance Languages
O'Rourke, J.	Assistant Professor	Sociology
Schiffer, Eva	Assistant Professor	German
Wiarda, H.	Assistant Professor	Government
Williams, R.	Assistant Professor	English

K. THE COLLEGE CURRICULUM FOR UNDERGRADUATES

(1) Changes in Undergraduate Curriculum

Table 20 summarizes the College curriculum in considerable detail with respect to number and type of courses offered by each department and with respect to course changes approved during 1965-66.

In September, 1965 the College offered 725 undergraduate courses: 183 primarily at the freshman - sophomore level, 486 at the upper-class

level, and 56 special topics, individual problems, or seminars primarily for seniors.

During the course of the year changes were instituted in 21 areas, 16 courses being discontinued and 65 new courses being approved. Thus, there was a net addition of 49 courses to the curriculum, making a total of 774 courses available in the College for September, 1966.

Most of the course changes were not extensive and consisted of the addition of one or two courses in a discipline. Five of the deletions were connected with expansion of one-semester to two-semester courses. Most of the other discontinued courses were replaced by courses in the same discipline but covering different subject matter.

The program for Spanish majors was completely revised in an effort to provide more options for the student. In the "old" program, 3 of the 13 upper-level courses were 1-credit courses in speaking (required of majors); hence, a student had to choose 9 of 10 other courses. The revision permits the student to choose 9 out of 15 other courses.

The mathematics program was also reworked; five courses were discontinued, nine were added, and seven others were modified to a considerable extent. Two courses for the benefit of prospective teachers were added, but the addition of a course to be taken by every major during his fourth or fifth semester represents the most significant change. The introduction of this course permitted or required a change in most of the other upper-level courses.

The approval of courses in Polish through the intermediate level is a noteworthy development. Although this provides an eleventh foreign language in which instruction is given, the more important aspect of this addition is to provide a second Slavic language to strengthen the program for students majoring in Russian.

This year also saw the approval of new, introductory courses in Chemistry and Physics for non-science students. There is also a new, introductory course in Microbiology with a parallel aim. Acceptance by the students of these courses, in which laboratory work receives less emphasis, can ease the load on our teaching laboratories.

The members of the College Curriculum Committee for 1965-66 are listed below:

Sumner M. Greenfield	Associate Professor	Spanish
Vincent Illardi	Associate Professor	History
Sidney Kaplan	Professor	English
Henry N. Little	Professor	Chemistry
Gail B. Oakland	Professor	Statistics

Otto I. Stein	Associate Professor	Botany
T. O. Wilkinson	Professor	Sociology
H. Schumer)		Psychology
Leonta Horrigan)	Assistant Deans	English
Severt J. Savereid)		Speech
H. Duncan Rollason) and		Zoology

Associate Dean Robert W. Wagner, Chairman

There will be two major questions under consideration for next year: (1) Whether or how to introduce Hebrew language and/or Semitic studies into the curriculum and (2) Whether or how to introduce professional programs in Art and in Music into the College. Both of these latter departments maintain that adequate pre-professional training is impossible within the framework of our Bachelor of Arts degree; they have been discussing special programs leading to a Bachelor of Fine Arts or a Bachelor of Music degree.

(2) Use of Graduate Teaching Assistants (TA's) in Undergraduate Courses - Table 21 presents a detailed summary, by department and division, of all courses in which TA's had contact with undergraduates in the fall semester of 1965-66. Separate tabulations are recorded for "regular" sections, quiz sections, and lab (or studio) sections.

Throughout the College, TA's were used in 612 sections of 71 courses. (In these same 71 courses, regular faculty members taught 333 sections). Of the 612 sections taught by TA's, 190 were "regular" sections, 76 were quiz sections, and 346 were lab (or studio) sections.

By far the largest use of TA's in "regular" sections occurred in English composition (85 sections), elementary foreign languages (26 sections), and in the most elementary mathematics courses (36 sections). Only 1 "regular" section of a "200" course was taught by a TA.

Of the 76 quiz sections taught by TA's, 21 were in History and Philosophy, 30 in the Social Sciences, and 25 in the Physical Sciences.

Of the 346 lab (or studio) sections taught by TA's, most were in the Physical Sciences (205) and Biological Sciences (105), the remaining being scattered among German language laboratory, Economics help sections, and Art studio sections.

Although we are encouraging departments to improve their supervision of the teaching performed by TA's and to encourage and reward good teaching, we firmly believe that the best method to improve this aspect of our teaching program is to recruit TA's of superior intellectual caliber.

L. THE CURRICULUM STUDY COMMITTEE

A "blue-ribbon" Curriculum Study Committee has been appointed to undertake a thorough study of the present College curriculum and to recommend any changes considered desirable. The Committee has been asked to make policy recommendations and to give special attention to College requirements for the freshman and sophomore years. Interdisciplinary courses, honors sections, and individual study programs are expected to be considered.

The members of this important Committee are listed below:

Dr. John A. Brentlinger, Assistant Professor of Philosophy

Dr. Theodore C. Caldwell, Professor of History

Dr. LeRoy F. Cook, Associate Professor of Physics, Chairman

Dr. Edward L. Davis, Associate Professor of Botany

Dr. Peter Heller, Commonwealth Professor of German

Dr. C. Peter Lillya, Assistant Professor of Chemistry

Dr. Lewis C. Mainzer, Associate Professor of Government

Dr. Bernard Spivack, Professor of English

Mr. Ronald A. Steele, Assistant Professor of Music

Dr. David W. Yaukey, Associate Professor of Sociology

Meeting with the Committee as non-voting members and resource persons are Associate Dean Wagner and Assistant Deans Horrigan, Schumer(McFarland), Rollason, and Savereid.

At the request of the Committee the above Deans selected a consulting panel of the following twelve students:

Thomas Andre	1967	Kenneth A. Hardy	1967
Esther W. Atherton	1968	Harvey S. Liszt	1967
Duncan P. Crawford	1968	Guenter H. Loeser	1969
Barbara A. Devens	1967	Elizabeth A. Reid	1967
Rita Dreiblatt	1967	Robert G. Wilfong	1968
Janis A. Farren	1968	Ronald P. Woodland	1967

One joint meeting with the students took place in May, and additional meetings will occur during 1966-67.

The major part of the College Faculty Meeting on May 16 was devoted to an open discussion of curricular questions. A questionnaire was

distributed to each faculty member in May asking for comments regarding merits, defects, and suggestions for improvement of both college and departmental curricula.

The Committee is planning an intensive 3-day session in early September with the hope that some major policy recommendations can be delineated at that time. The Committee's report to the Faculty is due before June 1, 1967.

The appointment of this Committee represents the culmination of at least one year of informal and formal discussion within the College. In February the faculty voted roughly 3 to 1 in favor of appointment of this Committee. It should be noted that the present curriculum was adopted in 1958 - about two student generations ago. Only about one-third of the present faculty took part in the deliberations of 8 years ago. Moreover, high school curricula have undergone striking changes and improvements since 1958, and today's freshmen enter the University with considerably better preparation.

It is hoped that Professor Cook's Committee will propose a curriculum which reflects these changes and which revitalizes and catalyzes the process of liberal education. The rich diversity and high professional quality of our present Faculty provide a potential for curricular innovation that is not available to a liberal arts college unattached to a large university.

M. NEW GRADUATE PROGRAMS

The doctoral program in Mathematics got off to a flying start in September of 1965 with about twenty students enrolled for work beyond the master's degree level.

A program leading to the Master of Music degree was formulated and approved during the report year; the first students will be enrolled in September of 1966.

A doctoral program in Polymer Science and Engineering was approved; the first students will be enrolled next year. This is a cooperative program involving the Polymer Research Institute, the School of Engineering, and the Chemistry Department.

These developments will leave Astronomy, Classics, and Russian as the only undergraduate majors which do not have any graduate programs. Art, Music, Russian, and Statistics will be the only departments without doctoral programs in September of 1966.

N. OVERSEAS PROGRAMS

(1) NDEA Summer Institute for Secondary French Teachers at Lycee d' Arcachon, France (June 17 - August 19, 1965).

This Institute, directed as in the past by Professor S. C. Goding, provided an opportunity for experienced secondary school teachers to improve their language competence and knowledge of French civilization and culture through concentrated study and guided field trips in France. Fifty-eight teachers from 22 states including 11 from Massachusetts, participated in the program.

(2) Summer Session at Bologna, Italy (June 23 - August 18, 1966). This summer program, directed by Professor Howard H. Quint, attracted 64 students, 50 of whom are regular University students and 10 of whom are graduate students. The four courses offered are those in which the Italian location can contribute significantly to student comprehension of the subject, namely History of the Renaissance, Renaissance Art, The Romantic Poets, and International Organization. Instructors in these courses are, respectively, Professor Vincent Illardi and Professor Paul Norton (both of the UMass faculty), Dr. David Erdman (from the N. Y. Public Library), and Professor Ruth Lawson (Mt. Holyoke College). This program also includes a number of weekend trips to various places in Italy.

(3) Oxford Summer Seminar, St. Hilda's College, (June 27 - August 8, 1966). Professor Ernest H. Hofer, the Director of this program, selected 115 students from a large group of applicants. Faculty from Oxford and other British Universities will offer courses in Chaucer, the Renaissance, Modern Novel, and Modern Drama, Literary Criticism, and Modern Poetry. In addition, arrangements have been made for a series of evening lectures by distinguished scholars and professors.

(4) Academic-year Program in Freiburg, Germany. Plans for an Atlantic Studies Center established with the cooperation of the University of Freiburg came to fruition during the year. Professor M. L. Ratner will serve as Director during 1966-67. He, Professor F. C. Ellert, and approximately 19 graduate and 13 undergraduate students will be in residence in Freiburg from mid-September, 1966 through July, 1967.

The program of Atlantic Studies is very broad in character because of the conviction that exploration and understanding of all aspects of civilization - cultural, literary, historical, economic, and governmental - are important if the interdependence between the nations of Western Europe and the United States is to prosper. Thus, the aims are those of cultural exchange and general education as well as those of professional and vocational training. A variety of positions exist in education, business and government which demand persons who appreciate the bases for interdependence between peoples of the Atlantic Community.

Fluency in the German language and an introduction to contemporary German life and to the German educational system were considered important prerequisites for maximal realization of the opportunities afforded the student participants. To this end, Professor Haas taught a 6-credit Freiburg Preparatory Course (German 385-386, Special Problems) exclusively in German. Advanced composition, stylistic flexibility, and oral expression were stressed. In addition, an orientation seminar (without academic credit) was organized by Professor W. G. O'Donnell. Faculty from several departments led lively discussions at each meeting.

Dr. J. S. Harris, Commonwealth Professor of Government, assumed much of the administrative responsibility for the program during most of the past year. Each member of the committee, listed below, made a significant contribution to the total effort.

We are greatly indebted to the Associate Alumni for their grant of $4,000 for fellowships and for a program of special lectures.

Atlantic Studies (Freiburg) Committee

F. C. Ellert	German
W. Haas	German
J. S. Harris	Government
P. Heller	German
E. Hofer	English
C. W. King	Sociology
W. G. O'Donnell	English
M. Ratner	English
R. L. Richman	Economics
E. Schiffer	German
D. Ware	History
S. S. Weiner	Romance Languages

H. D. Rollason, Jr.,
Assistant Dean, College of Arts and Sciences
Chairman

O. SPECIAL COLLEGE AWARDS TO OUTSTANDING STUDENTS

(1) FIRST Associate Alumni Award for Outstanding Scholarship

This award, consisting of a check for $200., was presented by Dean Hunsberger to Miss Roberta M. Bernstein at Commencement. Miss Bernstein is the only student ever to have graduated from the College of Arts and Sciences with an "A" in each academic course taken during her entire college career. Her truly remarkable achievement can best be appreciated by noting that there have been nearly 5000 graduates of this College over the past 11 years.

Miss Bernstein's scholarship was cited on page 74 of Time magazine (issue of June 24, 1966).

The Associate Alumni have indicated that a similar award will be presented in the future to any other graduate who is able to duplicate Miss Bernstein's achievement.

Other academic honors received by Miss Bernstein included the following:

Only student in Class of 1966 to graduate Summa Cum Laude
Election to Phi Beta Kappa
Election to Phi Kappa Phi
Woodrow Wilson Fellowship recipient

(2) Dean's Book Awards

On February 25, 1966 Dean Hunsberger awarded special editions of Robert Frost's poetry to each of the following sophomores, who were selected by their instructors for outstanding performance in English 128:

Name of Student	Major	Name of Instructor
James J. Campbell	Pre-medical	P. Saagpakk
Janis A. Farren	Government	H. McCarthy
Lindsay A. Shippee	History	H. Brogan

P. WOODROW WILSON FELLOWSHIPS

The following seniors in this College were awarded Woodrow Wilson Fellowships for graduate study.

Student	Undergraduate Major	Graduate Specialty
Roberta M. Bernstein	German	Art History
David A. Johns	Russian	Linguistics
Carol H. Woodcock	French	French

It is noteworthy that all three of the above students majored in one of the foreign language departments.

Our College has graduated a grand total of 24 Woodrow Wilson Fellowship recipients, 9 (4+2+3, respectively) in the last three years.

Q. MISCELLANEOUS ACCOMPLISHMENTS AND SPECIAL PROGRAMS

(1) Fine Arts - One of the several measures of maturity of a university is the quality and extent of its activity in the fine and performing arts. Although the opportunity for further expansion is great, we have reason to take pride in the growth during the past year.

The Department of Art sponsored 11 exhibits of the works of recognized artists. Their art collection was increased by approximately 60 works with a market value of about $35,000. A new foundry and new kilns of greater capacity than those previously available have been constructed.

Performances of high quality have been presented by the University Chorus (80 members), chorale (60 members), Chamber Singers (10 members), Symphony Orchestra (63 members)and Concert Band (72 members). Faculty Music recitals are now at a high professional level, and audiences practically fill Bartlett Auditorium. Student recitals represented a high degree of musicianship.

Two outstanding musical performances on campus during the year were those of William Doppman, pianist, and of the Iowa String Quartet (one of whose members joins our Faculty in September, 1966). The newly organized Fine Arts Council of the University can be expected to contribute significantly to the further expansion of quality programs in the arts.

The University Theater presented five major productions; total attendance was approximately 7578, more than twice that of the previous year. In addition, two M. F. A. productions attracted audiences totaling about 1500. A Film Study Series of 12 films, each preceded by a short commentary, was also conducted by the University Theater.

(2) Training of Teachers. - The training of secondary school teachers is an important concern of the College of Arts and Sciences. Closer cooperation between the School of Education and the Department of Romance Languages has resulted in the assignment of Professor Thomas Sousa of our department as instructor of the course in Methods of Foreign Language Teaching. That the instructor in this course is competent in foreign language is surely a step in the right direction.

Summer Institutes, partially supported from federal funds, also contribute to teacher training. Two such institutes are planned for the summer of 1966.

The Department of History will offer a program for high school teachers under the direction of Professor Albertson. The NDEA award of $152,000 was the largest to any university in the country for an institute in History.

An N.S.F. Grant will support an Institute for college teachers of Botany under the direction of Professor Davis. This Institute provides an opportunity to bring to thiscampus 12 outstanding botanists to serve as staff.

(3) Provost's Fund for Educational Experimentation and Course Improvement. This fund has done much to stimulate the development of new courses and the improvement of existing courses, particularly at the introductory level. Among departments aided by this fund are Chemistry, Physics, Microbiology, English, History, and others.

We sincerely hope this fund will become a permanent feature of the University's budget. It is our opinion that the educational benefits from this fund are very much greater than the casual observer might suppose merely from noting that (small) number of dollars expended.

(4) Miscellaneous. The Summer Field School in Archeology, largely planned by Professor Fraser, was taught during the summer of 1965 by Ronald Sporesand will be taught during the summer of 1966 by Professor William Harrison.

A 3-day conference on Economic Geology - organized by Professor Farquhar - took place in January. Some 60 speakers addressed an audience of about 350 persons. This conference spotlighted the need for a state agency concerned with Geology.

Professor D. J. Foulis organized a national conference, held in Chicago, on Baer-star Semigroups.

VII. FUTURE PLANS AND NEEDS

Having carefully reviewed Section VII of last year's Annual Report, I am highly pleased to note the number of "plans" which have been executed in full or in part and the number of "needs" which have been fulfilled in full or in part. If such progress can be continued and accelerated, I am hopeful that the University of Massachusetts will move into the front rank of American institutions of higher learning. However, more remains to be done in the future than has been accomplished in the past.

A. GENERAL CONSIDERATIONS

As mentioned in our budget documents for FY 1967 and FY 1968, "THE MOST BASIC NEED OF OUR COLLEGE IS TO HAVE EXISTING AUTONOMY LEGISLATION EXTENDED (A) TO INCLUDE THE ACADEMIC BUILDING PROGRAM, (B) TO ELIMINATE MAXIMA ON FACULTY SALARIES, AND (C) TO INCLUDE NON-PROFESSIONAL (SECRETARIAL AND TECHNICAL) PERSONNEL." *

Corequisite with the above, it is essential for us to eliminate the plethora of campus red-tape which is an unnecessary hangover from pre-autonomy days and which constantly irritates our best faculty. The campus mythology surrounding what can be and what cannot be done under autonomy must be exorcised. This is particularly true with respect to certain aspects of our personnel policy, most aspects of our purchasing policy, and virtually all procedures for processing travel vouchers and similar forms. In the Roosevelt era, Robert Moses substantiated his accusation that Harold Ickes devised administrative rules to warp policy established by Congress. An analogous charge could be made to stick with respect to those who administer certain of the above-named policies and procedures. For the past several years, I have urged the University to employ outside consultants to advise on methods for improving all aspects of our business operations. "THE FACULTY BOARD TO ADVISE ON PURCHASING POLICY - WHICH WAS APPROVED BY THE BOARD OF TRUSTEES ON AUGUST 2, 1962 - SHOULD BE ACTIVATED AT THE EARLIEST POSSIBLE MOMENT." * Our asinine distinction between 01 and 03 faculty should be eliminated. In this case, an imaginary bookkeeping problem has been paraded as a policy problem. Other examples could be provided ad nauseam.

"A COLLEGE AS LARGE AS OURS SHOULD HAVE FREEDOM - WITHIN PRECISELY DEFINED LIMITS - TO TRANSFER MONEY FROM ONE ACCOUNT TO THE OTHER. THIS MIGHT BE ACCOMPLISHED BY REQUESTING SUCH PERMISSION FROM THE TRUSTEES AT THE TIME THE BUDGET FOR A GIVEN YEAR IS APPROVED. FOR EXAMPLE, ADVANCE PERMISSION TO TRANSFER FROM ONE ACCOUNT TO ANOTHER UP TO 10% OF THE ALLOCATED FUNDS WOULD BE EXTREMELY DESIRABLE. I CANNOT SEE THAT SUCH A POLICY WOULD VIOLATE EITHER THE LETTER OR THE SPIRIT OF EXISTING AUTONOMY LEGISLATION." *

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* QUOTED FROM LAST YEAR'S ANNUAL REPORT.

It is my considered opinion that greater delegation of carefully-defined, operational authority to Deans and Department Heads should be explored so that the higher administration may gain more time for determining policy and for setting the ground rules for administering policy.

B. PERSONNEL

1. "THE GREATEST PERSONNEL NEED OF OUR COLLEGE IS FOR MORE SENIOR FACULTY WHO HAVE HAD EXTENSIVE EXPERIENCE IN TRAINING PH.D. STUDENTS AT FIRST-RATE INSTITUTIONS." * Without such faculty it is unreasonable to expect newly-established Ph.D. programs to approach distinction."IN THIS CONNECTION, IT IS IMPERATIVE THAT PRESENT SALARY MAXIMA BE ELIMINATED -- EITHER PARTIALLY OR COMPLETELY. IN A VERY FEW YEARS, SALARIES OF $30,000 WILL BE AS COMMON AS SALARIES OF $20,000 ARE AT PRESENT." *

2. As a means of attracting distinguished, senior faculty I plan to suggest explicitly to the Heads of our larger departments that much thought be given to what might be designated as "pyramidal offers"as a means of building up real faculty strength in a given area. The key person in such an offer would be an established professor who in the sciences would be of National Academy of Sciences caliber and who in the non-sciences would be of corresponding distinction. This person would be offered some combination of the following:

(a) A salary large enough to induce him to move (perhaps a 50% increase over his present salary).

(b) Freedom for him to recommend 3 to 5 junior faculty of his own choosing.

(c) A sizeable guarantee of library books and journals in his field and/or of laboratory equipment.

(d) Guarantee of necessary renovation of space.

(e) Guarantee of summer research support, if needed, for the junior members of the team.

(f) Guarantee of money for graduate research assistants, particularly if the established professor is not a scientist.

(g) Guarantee of any secretarial and technical positions needed.

If this College could make several such pyramidal offers during the coming year, it would inform the entire academic community that UMass "means business". A professor of the caliber just described gives the

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* QUOTED FROM LAST YEAR'S ANNUAL REPORT.

University a distinction which makes his high salary seem what it is, namely a real bargain!

3. Moving expenses should be paid for all faculty. I would think that a budget of $400 per new faculty appointment would be adequate. Under autonomy, there can be no question but that UMass has the legal authority to pay moving expenses.

4. "FOR THE (FIFTH) CONSECUTIVE YEAR I AM REPEATING MY REQUEST FOR FUNDS TO REIMBURSE DEPARTMENT HEADS (OR FACULTY DESIGNATED BY THEM) FOR ADMINISTERING THEIR DEPARTMENTS DURING THE SUMMER. THIS IS ESSENTIAL IF WE ARE TO INCREASE OUR SUMMER OFFERINGS AND IF WE ARE TO CREATE A PROPER ACADEMIC ATMOSPHERE IN THE SUMMER." *

5. Since only the science departments can attract outside money for research assistants, those of our non-science departments who have only limited need for TA's are being severely penalized by the unavailability of University money for research assistantships. The Ph.D. programs of such departments cannot flourish without money for research assistantships. THIS IS A HIGH-PRIORITY NEED OF OUR COLLEGE.

Actually, it would be desirable to allocate a sum of money to each department and to let the department decide how much is to be used for TA's and how much for research assistants.

6. "IN MY SIX YEARS ON THIS CAMPUS I HAVE NEVER SEEN THE MANNING TABLE OF THE UNIVERSITY WITH RESPECT TO NON-PROFESSIONAL POSITIONS." * What I specifically desire is a list of all non-professional titles and grades. During the past year I learned for the first time of the existence of Technical Specialists and Engineering Aides, but this information did not come to me from the Personnel Office. Lack of this information has hindered the proper performance of my duties. The failure to supply this information is unconscionable.

7. Staff assistants and staff associates "ARE ESPECIALLY NEEDED IN OUR SCIENCE DEPARTMENTS AND IN OUR LARGER NON-SCIENCE DEPARTMENTS SO THAT DEPARTMENT HEADS AND FACULTY MAY BE RELIEVED OF MORE ROUTINE ADMINISTRATIVE AND TECHNICAL CHORES. AS FACULTY SALARIES IMPROVE, IT BECOMES INCREASINGLY UNECONOMICAL TO HAVE FACULTY PERFORM CHORES THAT LESS HIGHLY-TRAINED PERSONS CAN DO EQUALLY WELL, IF NOT BETTER." *

8. "DURING THE COMING YEAR (I HOPE THAT) STATISTICS (CAN) BE INCORPORATED WITH MATHEMATICS INTO A DEPARTMENT OF MATHEMATICS AND STATISTICS." *

9. Major attention must be given, during the coming year, to recruitment of new Heads of Economics and of Psychology.

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* QUOTED FROM LAST YEAR'S ANNUAL REPORT.

C. FACILITIES

1. The lack of progress with Section IV of the Morrill Science Center is shameful, and I shall not be surprised if faculty and/or department heads in Microbiology and Zoology resort to drastic measures that can only weaken these departments and undo much of the substantial progress made during the past four years. The personal discomfort and professional humiliation to which this group of faculty has been subjected is as serious as the enrollment limitations which will continue until the building becomes fit for habitation.

To repeat the issues at stake and the unkept promises - the most recent of which date back to the "walk-through" meeting of February, 1965 - would be fruitless. Suffice it to say that our on-campus handling of this building has been as unsatisfactory as many of the worst features of the BBC. Even the recently-suggested weekly meetings in the President's Office have failed to materialize. The department heads concerned are seriously worried that Section IV will not be completely ready for occupancy by September of 1967!

2. As long ago as this time last year I predicted that neither the Machmer addition nor Bartlett East will be ready for occupancy in September of 1968. Nothing has happened in the interval to cause me to alter this prediction. The Physical Plant report of July 1 estimates that both buildings will be completed by March of 1968 if construction starts in September of 1966. Since neither building has yet been placed on bid, construction cannot start in September. As is par for the course, I have no knowledge of the reasons for the delay. Failure to occupy these buildings by September of 1968 will have consequences in terms of student enrollment that are far more unfortunate than is the case with Morrill IV. It is my considered opinion that September, 1968 will see a crisis in academic space for Arts and Sciences.

For September of 1967 apparently our expansion needs will be accommodated through conversion of Knowlton House and South College to faculty offices. Arnold House has solved our office problem for September of 1966. The availability of the County Circle dorms for expansion in Psychology will be absolutely necessary if we are to attract a highly competent new Head of Department and if we are to hold him until Bartlett West is occupied.

Although the University Theater is gaining increased stature each year, competition for the few existing stages becomes increasingly severe each year. Renovation of Grinnell Arena for use by the theater has been proposed, but no action has been taken. To maintain faculty and student morale in theater for another 4 or 5 years may prove to be impossible if extra space is not provided during 1966-67. In this connection, no action has been taken on the Speech Department's urgent request to have

a theater architect review the plans for the Fine Arts Building.

For the past several years our College has taken a terrible beating on capital outlay, and 1965-66 has been no exception. For example, it was a crushing disappointment to be informed that we could not get funds to plan several sorely-needed academic buildings as a unit. Our only hope of meeting projected enrollments without a serious decline in educational quality is to plan several new buildings simultaneously. To have this carefully considered and thoroughly documented request rejected out of hand for Arts and Sciences and then advertised as a special feature of University College is a bitter pill.

During the coming year it is essential to mesh the building plans for University College with those of Arts and Sciences. In this connection, it is essential to fix a realistic date for the opening of University College and to decide how the service teaching load will be distributed between University College and Arts and Sciences.

The 1966-67 budget, as recommended by the Governor, would have the net effect of delaying occupancy of both the Fine Arts Building and Bartlett West for one whole year. Neither of these buildings will be occupied before September of 1971, even though the July 1 report from Physical Plant estimates completion of both buildings by May of 1969!

Particularly distressing is the fact that the architect's work on the Fine Arts building stopped sometime during the past year because of lack of funds, which will have to be supplemented in 1966-67. Again - as has been true so often in the past - we learned this through the back door and long after we should have been informed. Here is another example of the fact that on this campus the actual, month-by-month status of plans for new buildings is kept shrouded in paternalistic secrecy.

We also have no idea why neither Bartlett East nor the Machmer addition has not yet gone out to bid.

Another facet of the above paternalism very recently was displayed in connection with processing of plans to convert the Bartlett Lounge to administrative offices. In this case, the directions given to the architect can only be described as whimsical since they countermanded the explicit, written program. The net result is an entirely unnecessary delay, not to mention the waste of staff time involved. This simple renovation has undergone a charismatic transformation into a complex problem, and BBC cannot be the scapegoat! The attendant waste of money and time is inexcusable.

In summary, I strongly recommend that those academic persons who make recommendations concerning new buildings and renovations of old buildings should be consulted before changes in plans are made, should be informed promptly of changes, and should be furnished regular,

straightforward reports of progress. Until this is done our capital outlay and renovation program will continue to be utterly chaotic.

Allocations of money to this College for so-called "project maintenance" are virtually useless because no one has any real control over the use of funds until such time as the enormous backlog of work is cleared away. Such allocations have to bear some relation to the work capacity of the Physical Plant Department. This area remains a mystery to me.

Below are summarized some matters on which decisions were requested in last year's Annual Report and which still are unresolved.

(a) "FOR MORE THAN A YEAR WE HAVE ASKED FOR APPROVAL OF THE GENERAL CONCEPT OF MOVING GEOLOGY FROM MORRILL TO NEW QUARTERS." * This would entail renovation of existing Geology space for use by the biological sciences. The effect this would have on planning for Section V of Morrill is considerable. Since this time last year, Professors Gluckstern and Strother have recommended that we provide a home for Mathematics in one wing of a building and additional space for Physics in another wing of the same building, the two wings to be joined by a library for Mathematics and Physics. I strongly support this recommendation, and it would seem reasonable to provide space for Geology in a third wing of the same building.

(b) "SHOULD CLARK HALL BE RENOVATED AND INCORPORATED INTO SECTION V OF MORRILL? SHOULD THE PRESENT FACULTY CLUB BUILDING BE MOVED TO ANOTHER LOCATION TO MAKE ROOM FOR SECTION V?" *

(c) "WE WOULD LIKE APPROVAL OF OUR PLAN TO RENOVATE OLD CHAPEL FOR USE AS ADMINISTRATIVE OFFICES OF THIS COLLEGE AS SOON AS THE FINE ARTS BUILDING IS OCCUPIED." *

(d) "AN EXPEDITER FOR EACH BUILDING PROJECT WOULD BE VERY DESIRABLE IF SUCH A PERSON COULD BE GIVEN SOME REAL AUTHORITY. SUCH A PERSON WOULD CONCENTRATE ON A GIVEN PROJECT FROM THE INITIAL PLANNING THROUGH OCCUPANCY AND WOULD ENDEAVOR TO ELIMINATE DELAYS AT ALL STAGES." *

(e) "WOULD IT BE FEASIBLE TO ASK BBC TO OPEN AN OFFICE IN AMHERST? SHOULD BBC BE REPRESENTED ON OUR MASTER PLANNING COMMITTEE?" *

(f) "HOW CAN SOUTH COLLEGE BEST BE USED WHEN ITS PRESENT OCCUPANTS LEAVE? WHAT KINDS OF MODIFICATIONS WILL BE NECESSARY?" *

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* QUOTED FROM LAST YEAR'S ANNUAL REPORT.

D. EQUIPMENT AND SUPPLIES

The Provost's SEUIB fund has served as an invaluable shot in the arm for our recruitment program, particularly since the Vietnam war has produced a decrease in federal monies available for new research projects. During 1966-67 more equipment money will be required to help junior faculty appointees get started with research. "Seed" money of this kind pays rich dividends, as has already been demonstrated by the program in High-Energy Physics.

The remaining equipment money for Section IV of Morrill is long overdue and should be supplied without further delay.

"THE CHEMISTRY STOCKROOM SHOULD BE ALLOCATED $100,000 FOR EACH OF AT LEAST TWO SUCCESSIVE YEARS TO ENABLE IT TO BUILD UP A STOCK OF EQUIPMENT AND SUPPLIES COMMENSURATE WITH THE DEPARTMENT'S HEAVY INVOLVEMENT IN BOTH UNDERGRADUATE AND GRADUATE WORK. OUR DEVELOPING PHYSICS DEPARTMENT WILL NEED SUBSTANTIAL 'SEED' MONEY FOR EQUIPMENT FOR EACH OF AT LEAST THE NEXT 5 YEARS." * Equipment (at least $50,000) also is needed for research in speech science.

"THE UNIVERSITY SHOULD ACQUIRE A STOCK OF BASIC OFFICE EQUIPMENT (DESKS, CHAIRS, FILE CABINETS, BOOKSHELVES, TYPEWRITERS, ETC.) WHICH CAN BE REQUISITIONED ON SHORT NOTICE BY DEPARTMENTS WHICH HAVE APPOINTED NEW STAFF. MUCH MONEY CAN BE SAVED BY PURCHASING LARGE QUANTITIES OF SUCH COMMON ITEMS OF EQUIPMENT." **

E. MISCELLANEOUS

1. During 1966-67 I hope to recommend the appointment of an Associate Dean for General Education, i.e., a person who would be responsible for supervising, coordinating, and improving all non-major courses and who would endeavor to make certain that all faculty who teach such courses are adequately rewarded.

Even more pressing is the need to appoint at least one Associate Dean whose primary job would be to assist me with all faculty personnel matters. This represents a change from the Divisional Dean concept (mentioned in my budget for FY 1968), the change being in accord with the recommendations made to me by Dean Clark of Rochester and Professor Doi of Michigan.

2. The science departments are particularly anxious to receive at least a partial rebate of NDEA Cost of Education Allowances, not to mention a partial rebate on overhead from research grants. Unless this is done I fear we may be killing the goose that lays golden eggs.

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* QUOTED FROM LAST YEAR'S ANNUAL REPORT.

** QUOTED FROM THE LAST TWO ANNUAL REPORTS.

3. During the past year -- after much discussion with Dean Wagner and others -- I submitted a proposal recommending a fundamental re-organization of the UMass Summer School under the guidelines mentioned in last year's Annual Report. I would hope that this proposal or an improvement thereof might be sent to the Faculty Senate.

4. "DURING 1966-67 THE MUSIC DEPARTMENT PLANS TO MAKE AVAILABLE TO EDUCATIONAL AND CULTURAL GROUPS IN THE STATE ITS REGULAR SERIES OF FACULTY RECITALS." * I heartily endorse this plan.

F. CONCLUDING REMARKS

It continues to be a rare privilege to work with Provost Tippo, and I am entirely certain that the faculty and department heads of this College echo that sentiment. I sometimes think I should pay tuition for the conversations I have had with him, for in retrospect I regard them as a valuable seminar in academic administration. It is most heartening to report to a man whose integrity is absolutely beyond question and whose keen assessment of academic priorities is unparalleled in my experience.

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* QUOTED FROM PROFESSOR BEZANSON'S ANNUAL REPORT.

TABLE 1: PROFESSIONAL POSITIONS (FTE) FILLED BY RANK - FALL SEMESTER

	1963	1964	1965
(a) Administration			
Dean	1	1	1
Associate Dean	1	1	1
Assistant Deans	0	1 1/2	2 1/2
Totals	2	3 1/2	4 1/2
(b) Faculty			
Professors	69 (21.8%)	82 (22.2%)	93 1/2 (20.7%)
Associate Prof.	54 (17.0%)	64 (17.3%)	82 (18.2%)
Asst. Prof.	104 1/4 (32.8%)	131 (35.5%)	175 1/4 (38.9%)
Instructors	90 1/4 (28.4%)	92 1/4 (25.0%)	100 3/4 (22.2%)
Totals	317 1/2	369 1/4	451 1/2[1]
(c) Non-Teaching			
Staff Associates	1	0 (vacant)	1
Staff Assistants	1	1	3
Totals	2	1	4
(d) Teaching Assistants	208	288	341[2]
(e) Postdoctoral Research Associates (Not on State funds)			
Chemistry	9	10	8
Sociology	-	-	1
Zoology	4	3	7
Totals	13	13	16

Footnotes

(1) There were 10 unfilled faculty positions, giving a total of 461 1/2 faculty positions (FTE) (see Table 5).

(2) This FTE figure was obtained by dividing the total allocation for TA's ($750,200) by the budgeted average stipend ($2200).

TABLE 2: FACULTY POSITIONS (FTE) FILLED BY DIVISION, DEPARTMENT, AND RANK: FALL SEMESTER

Note: Expressions like 2-0-1-4=7 represent a total of 7 faculty positions distributed as follows: 2 Full Professors, 0 Associate Professors, 1 Assistant Professor, and 4 Instructors. Similarly, 5-4-12-4=25 and 15-12-35-13=75 have obvious meanings.

	1963	1964	1965
Fine Arts			
Art	1- 2- 1 - 5 = 9	1- 3- 2 - 5 = 11	3 - 2- 4 - 5 = 14
Music	2- 0- 2 - 2½= 6½	3- 1- 1 - 3 = 8	3 - 2- 3 - 2 = 10
Speech	1- 2- 6 - 7 = 16	1- 2- 6½- 9 = 18½	2 - 1- 9 - 9 = 21
TOTALS	4- 4- 9 -14½= 31½	5- 6- 9½-17 = 37½	8 - 5-16 -16 = 45
Humanities			
English	10-10-14 -14 = 48	11-13-18½-11 = 53½	14½-16-19½-14 = 64
Ger-Russ	3- 1- 5 - 6 = 15	3- 1- 6 - 9 = 19	3 - 1- 7 - 9 = 20
History	5- 5- 9 - 7¼= 26¼	5- 6-11 - 7¼= 29¼	7 - 4-15 - 9 = 35
Phil.	1- 1- 1 - 2 = 5	1- 1- 2 - 2 = 6	1 - 1- 3 - 1 = 6
R.Lang.	3- 4- 6 -11 = 24	5- 6- 8 -12 = 31	5 - 9- 8 -14 = 36
TOTALS	22-21-35 -40¼=118¼	25-27-45½-41½=138¾	30½-31-52½-47 =161
Social Sciences			
Economics	4- 1- 2 - 4 = 11	4- 1- 3 - 5 = 13	5 - 1- 3 - 8 = 17
Govt.	5- 3- 3 - 2 = 13	6- 5- 3 - 3 = 17	7 - 6- 9 - 4 = 26
Psych.	6- - 6 - 2 = 14	6- 1- 7½- 2 = 16½	6 - 1-13¼- 1 = 21¼
Soc-Anth	3- 3- 6½- 2 = 14½	4- 2- 8½- 1 = 15½	5 - 2-11 - 1 = 19
TOTALS	18- 7-17½-10 = 52½	20- 9-22 -11 = 62	23 -10-36¼-14 = 83¼
Biological Sciences			
Botany	2- 3- 3 - 1 = 9	4- 3- 3 - 1 = 11	3 - 5- 4¾- ½= 13¼
Micro.	1- 0- 3 - 1 = 5	1- 0- 4 - 1 = 6	1 - 0- 6 - 1 = 7
Zoology	6- 5- 4 - 1 = 16	7- 5- 7 - - = 19	7 - 6- 6 - 4 = 23
TOTALS	9- 8-10 - 3 = 30	12- 8-14 - 2 = 36	11 -11-16¾- 5½= 43¼
Physical Sciences			
Astr.	0- 0- 1 - 0 = 1	0- 0- 1 - 0 = 1	0 - 1- 1 - 0 = 2
Chem.	6- 5-13 - 4½= 28½	7- 5-14 - 5½= 31½	7 - 6-16 - 6½= 35½
Geol-Geog.	2- 2- 4 - 1 = 9	2- 2- 5 - 2 = 11	2 - 5- 4 - 1 = 12
Physics	3- 3- 4 - 4 = 14	4- 3- 6 - 2 = 15	4 - 5-12 - 1 = 22
TOTALS	11-10-22 - 9½= 52½	13-10-26 - 9½= 58½	13 -17-33 - 8½= 71½

TABLE 2: FACULTY POSITIONS (FTE) FILLED BY DIVISION, DEPARTMENT, AND RANK: FALL SEMESTER
(continued)

	1963	1964	1965
Mathematics and Statistics			
Math.	4- 4- 9¾-13 = 30¾	6- 4-12 -11 = 33	7- 8-18¾-10 = 43¾
Stat.	1- 0- 1 - 0 = 2	1- 0- 2 - 0 = 3	1- 0- 2 - 0 = 3
TOTALS	5- 4-10¾-13 = 32¾	7- 4-14 -11 = 36	8- 8-20¾-10 = 46¾
Chinese	-	0- 0- 0 - ½= ½	0- 0- 0 - ½= ½
Japanese	-	-	0- 0- 0 - ¼= ¼
COLLEGE TOTALS	69-54-104¼-90¼=317½	82-64-131-92¼=369¼	93½-82-175¼-100¾=451½

Footnotes

(1) Includes the Bureau of Government Research, which was transferred to the Department of Government in September, 1965.

TABLE 3: PROFESSIONAL PERSONNEL ACTIONS

	1963-64	1964-65	1965-66
Promotions	11	25	18
Tenure Appointments	15	11	7
Resignations	17	18	37
Terminations	4	13	
Retirements	1	1	0
Deceased	1	0	0
Merit Increases	268	250	300
Sabbaticals	18	21	27
Leaves of Absence without Pay	9	19	16

TABLE 4: NON-PROFESSIONAL POSITIONS[1] BY RANK: FALL SEMESTER

	1963	1964	1965
Secretarial			
Junior Clerk, Typist (02)	6	6	6
Junior Clerk, Steno (03)	23	25	31
Senior Clerk, Typist (06)	5	7	10
Senior Clerk, Steno (07)	10	12	18
Principal Clerk (09)	0	1	4
Totals	44	51	69
Non-Secretarial (Technical)			
Laboratory Helper (02)	1	1	1
Laboratory Assistant (04)	7	8	8
Animal Room Attendant (05)	0	0	1
Mechanical Handyman (06)	0	0	1
Herbarium Curator (07)	1	1	1
Laboratory Technician (07)	1	1	1
Technical Assistant (08)	7	8	12
Storekeeper (09)	2	2	2
Machinist (09)	2	2	2
Carpenter (09)	0	0	1
Electronics Technician (10)	2	2	2
Machinist Foreman (11)	0	1	1
Principal Storekeeper (12)	0	0	1
Totals	23	26	34

Footnotes

(1) Includes the Bureau of Government Research, which was transferred to the Department of Government in September, 1965.

TABLE 5: FACULTY POSITIONS (FP) AND SECRETARIAL POSITIONS (SP): FALL 1965 (FTE BASIS)

Division	Department	FP	SP	FP/SP RATIO	Highest Ranking Position[1]
Fine and Performing Arts	Art	15	1 1/2	10.0	JCS
	Music	10	2	5.0	SCS
	Speech	20 1/2	3	6.8	SCS
Division Totals		45 1/2	6 1/2	7.0	
Humanities	English	63 1/2	8	7.9	PC
	German-Russian	20	2	10.0	SCT
	History	36 1/4	4	9.1	SCS
	Philosophy	6	1 1/2	4.0	SCT
	Romance Languages	38	4	9.5	SCS
Division Totals		163 3/4	19 1/2	8.4	
Social Sciences	Economics	17	1	17.0	SCS
	Government	26	5	5.2	SCS
	Psychology	22 1/2	3	7.5	SCT
	Sociology-Anthropology	19	3	6.3	SCS
Division Totals		84 1/2	12	7.0	
Biological Sciences	Botany	14 1/4	2	7.1	SCT
	Microbiology	8	1 1/2	5.3	SCS
	Zoology	24	5	4.8	PC
Division Totals		46 1/4	8 1/2	5.4	
Physical Sciences	Astronomy	2	-	-	-
	Chemistry	35 1/2	6	5.9	PC
	Geol - Geography	12	2	6.0	SCS
	Physics	22	4	5.5	SCS
Division Totals		71 1/2	12	5.9	
Mathematics and Statistics	Mathematics	45	4	11.3	PC
	Statistics	4	1	4.0	JCS
Division Totals		49	5	9.8	
Chinese & Japanese		1	-	-	-
TOTALS		461 1/2	63 1/2	7.3	
Dean's Office		4 1/2	5 1/2[2]	-	SCS
GRAND TOTALS		466	69	6.8	

Footnotes

(1) Abbreviations: JCS = Junior Clerk Steno (03); SCT = Senior Clerk Typist (06); SCS = Senior Clerk Steno (07); PC = Principal Clerk(09).

(2) Includes Pre-Med Committee secretary plus 1/2 JCS held in reserve (retrieved from Philosophy).

TABLE 6: RATIOS OF FACULTY POSITIONS (FP) TO SECRETARIAL POSITIONS (SP) AND TO TECHNICAL POSITIONS (TP): FALL SEMESTER (1963-65)[1]

	1963	1964	1965
FP	317 1/2	369 1/4	461 1/2
SP	41	47	63 1/2
FP/SP Ratio	7.7	7.9	7.3
FP	317 1/2	369 1/4	461 1/2
TP	23	26	34
FP/TP Ratio	13.8	14.2	13.6

Footnotes

(1) Computations based on total faculty positions (FTE basis) and do not include personnel in the Dean's Office.

TABLE 7: COMPARATIVE ENROLLMENTS 1955-65 (Fall Semester)

Enrollment by Classes: SEPTEMBER	55	56	57	58	59	60	61	62	63	64	65
University Total	4341	4516	4791	5271	6131	6495	7018	7676	8311	10497	11859
Freshmen	1088	1148	1266	1366	1838	1725	1918	1922	2286	2592	2622
Sophomore	899	924	1016	1126	1149	1518	1463	1651	1727	2135	2516
Junior	897	823	879	914	994	1018	1323	1350	1648	1781	2225
Senior	744	898	830	861	874	996	980	1217	1221	1469	1572
4-Yr Undergrad.	3628	3793	3991	4267	4855	5257	5684	6140	6882	7977	8935
Stockbridge	338	333	331	348	395	396	394	451	454	484	516
Graduate	337	353	430	568	780	768	845	975	1303	1846	2240
Special and/or N. C.	38	37	39	88	101	74	96	110	172	190	168
Undergrad. Total	3628	3793	3991	4267	4855	5257	5684	6140	6882	7977	8935
Arts & Sciences	1721	1815	1759	2043	2472	2814	3116	3439	3976	4647	5060
Public Health									62	104	109
Education			231	274	331	377	426	448	485	607	695
Engineering	792	904	967	878	849	843	836	834	847	898	894
Business Adm.	506	498	501	507	550	488	502	544	602	678	831
Agriculture	324	297	268	277	274	313	341	361	345	395	487
Home Economics	183	150	132	122	130	115	114	137	178	194	268
Physical Education	65	78	77	98	153	135	245	263	242	278	367
Nursing	37	51	56	63	96	112	102	114	145	176	203
No major											21

TABLE 8: COMPARATIVE ENROLLMENTS (By Percentages) 1955-65 (Fall Semester)

Enrollment by Classes: SEPTEMBER	55	56	57	58	59	60	61	62	63	64	65
University Total	4341	4516	4791	5271	6131	6495	7018	7676	8811	10497	11859
Freshmen	25.0	25.4	26.5	25.9	30.0	26.6	27.3	25.0	25.9	24.7	22.2
Sophomore	20.7	20.5	21.1	2.14	18.7	23.4	20.8	21.5	19.6	20.3	21.2
Junior	20.7	18.2	18.4	17.3	16.2	15.7	18.9	17.6	18.7	17.0	18.7
Senior	17.1	19.9	17.4	16.4	14.3	15.3	14.0	15.9	13.9	14.0	13.3
4-Yr Undergraduate	83.5	84.0	83.4	81.0	79.2	81.0	81.0	80.0	78.1	76.0	75.4
Stockbridge	7.8	7.4	6.8	6.6	6.5	6.1	5.6	5.9	5.15	4.6	4.3
Graduate	7.8	7.8	9.0	10.8	12.7	11.8	12.0	12.7	14.8	17.6	18.9
Special and/or N. C.	.9	.8	.8	1.6	1.6	1.1	1.4	1.4	1.95	1.8	1.4
Undergrad. Total	3628	3793	3991	4267	4855	5257	5684	6140	6882	7977	8935
Arts & Sciences	47.5	47.8	44.1	47.8	50.9	53.5	54.8	56.0	57.8	58.2	56.6
Public Health									.9	1.3	1.2
Education			5.8	6.4	6.8	7.2	7.5	7.3	7.1	7.6	7.8
Engineering	21.8	23.8	24.2	20.6	17.5	16.1	14.7	13.6	12.3	11.3	10.0
Business Adm.	14.0	13.2	12.6	11.9	11.3	9.3	8.9	8.9	8.7	8.5	9.3
Agriculture	8.9	7.8	6.7	6.5	5.6	6.0	6.0	5.9	5.0	5.0	5.5
Home Economics	5.0	4.0	3.3	2.9	2.7	2.2	2.0	2.2	2.6	2.4	3.0
Physical Education	1.8	2.1	1.9	2.3	3.2	3.7	4.3	4.3	3.5	3.5	4.1
Nursing	1.0	1.3	1.4	1.6	2.0	2.1	1.8	1.9	2.1	2.2	2.3
No Major											.2

TABLE 9: TEACHING LOAD SUMMARY (1965-66) BY DEPARTMENT, DIVISION AND SEMESTER

NOTE: All figures include both undergraduate and graduate courses. Figures for S Cr H (Student Credit Hours), # Sec. (Number of Sections), and # Courses (Number of Courses) were compiled from departmental reports to the Dean's Office and do not include honors projects, special problems, theses, and other forms of individual instruction. Figures for S Co H (Student Contact Hours) were compiled from the IBM summary. A number of obvious errors in the IBM summary have been corrected, the corrected figures being indicated below by an asterisk (*). Those IBM figures followed by a question mark (?) represent cases in which the S Co H are lower than the corresponding S Cr H. Such a situation cannot correspond to reality, and we think the IBM figures are in error. Still other inconsistencies have not yet been resolved.

	Fall Semester				Spring Semester				Candidate (Fall Semester) for		
	SCrH	SCoH	#sec	# Cr.	SCrH	SCoH	#sec	# Cr.	Master	PhD	Total
Fine and Performing Arts											
Art	2757	5192	33	19	3501	5571	47	24	30	0	30
Music	1759	5474	40	30	1484	2047	46	36	0	0	0
Speech	4622	4971*	121	29	5213	5750	107	26	27	0	27
Totals	8138	15637	194	78	10198	13368	200	86	57	0	57
Humanities											
English Jour.	18534	19376	261	47	19085	18478	270	52	113	35	148
German	3635	4268*	87	18	3416	(4594)	79	18	20	12	32
Russian	597	675*	12	8	459		12	8	0	0	0
History	11667	13660	175	35	11043	12888	197	29	59	13	72
Philosophy	1461	1461*	28	11	1647	1622?	27	12	7	17	24
Romance Lang.	8073	9451*	171	40	7173	5993?	167	43	6	44	50
Totals	44967	48891	734	159	42823	43575	752	162	205	121	326

	Fall Semester				Spring Semester				Candidate (Fall Semester) for		
	SCrH	SCoH	#sec	# cr	SCrH	SCoH	#sec	# cr	Master	PhD	Total
Social Science											
Economics	3732	4200	39	21	3744	3719?	48	22	34	26	60
Government	6522	8692	83	22	6081	5901?	85	30	46	19	65
Psychology	10533	12884	61	30	9907	11325	88	42	3	118	121
Sociology	5874	(6618?)	22	34	7104	(8059)	44	20	(30)	(22)	(52)
Anthropology	768		8	8	1167		8	8			
Totals	27429	32394	213	115	28003	29004	273	122	113	185	298
Biological Sciences											
Botany	3130	6819	68	9	3228	5050	78	10	10	15	25
Microbiology	809	1689	23	8	560	1258	13	8	14	8	22
Zoology	6663	12206	119	18	6333	11611	110	22	30	30	60
Totals	10632	20714	210	35	10121	17919	201	40	54	53	107
Physical Sciences											
Chemistry	8722	19613	92	36	7061	16157	149	35	32	107	139
Geology	2075	5594	45	16	2023	(3881)	43	15	24	9	33
Geography	411	521	8	2	313		4	2	0	0	0
Physics	3226	4448	88	20	3481	4849	101	19	40	25	65
Astronomy	832	837	3	3	714	724	6	4	0	0	0
Totals	15266	31013	236	77	13592	25611	303	75	96	141	237
Mathematics and Statistics											
Mathematics	11841	12204	166	43	10552	10505?	160	49	41	19	60
Statistics	1347	1347*	8	7	1263	1233?	8	7	12	0	12
Totals	13188	13551	174	50	11815	11738	168	56	53	19	72
College Totals	119620	162200	1761	514	116552	141215	1897	541	578	519	1097

TABLE 10: STUDENT MAJORS (HEAD COUNT) BY DEPARTMENT AND DIVISION
NOTE: Figures in this table are from the Registrar's Office

	Undergraduate			Graduate			Totals		
	1963	1964	1965	1963	1964	1965	1963	1964	1965
Fine and Performing Arts									
Art	75	107	113	7	28	47	82	135	160
Music	14	17	34	0	0	0	14	17	34
Speech	68	85	105	16	25	24	84	110	129
Totals	157	209	252	23	53	71	180	262	323
Humanities									
English	681	779	921	78	119	148	759	898	1069
German	69	72	68	21	25	46	90	97	114
Russian			31			0			31
History	399	465	579	34	66	85	433	531	664
Philosophy	23	27	43	7	15	29	30	42	72
Romance Languages	175	207	274	13	29	47	188	236	321
Totals	1347	1550	1916	153	254	355	1500	1804	2271
Social Science									
Economics	121	113	128	25	44	51	146	157	179
Government	440	514	584	73	74	65	513	588	651
Psychology	272	303	384	63	97	118	335	400	502
Sociology	156	197	216	25	41	53	181	238	292
Anthropology			23						
Totals	989	1127	1335	186	256	287	1175	1383	1622
Biological Science									
Pre-professional	340	317	243	0	0	0	340	317	243
Botany	27	27	33	15	23	27	42	50	60
Microbiology	32	29	42	16	16	25	48	45	67
Zoology	159	193	349	48	65	61	207	258	410
Totals	558	566	667	79	104	113	637	670	780
Physical Science									
Chemistry	157	138	212	118	154	149	275	292	361
Geology	33	34	41	20	22	35	53	56	76
Physics	60	58	72	21	26	58	81	84	130
Astronomy	16	9	16	0	0	0	16	9	16
Totals	266	239	341	159	202	242	425	441	583
Mathematics & Statistics									
Mathematics	461	438	549	32	35	63	493	473	612
Statistics	0	0	0	0	5	17	0	5	17
Totals	461	438	549	32	40	80	493	478	629
COLLEGE TOTALS	3778	4129	5060	632	909	1148	4410	5038	6208

TABLE 11: FTE STUDENTS (S) BY DEPARTMENT AND DIVISION
(FALL SEMESTER)

	F. T. E. STUDENTS (S) 1963	1964	1965
Fine and Performing Arts			
Art	143	171	184
Music	53	69	117
Speech	207	226	318
Division Totals	403	466	619
Humanities			
English	964	1099	1237
German)	199	230	242
Russian)			40
History	538	672	778
Philosophy	83	88	98
Romance Languages	412	412	538
Division Totals	2196	2501	2933
Social Sciences			
Economics	189	238	248
Government	257	570	435
Psychology	426	487	702
Sociology)	255	350	392
Anthropology)			51
Division Totals	1127	1645	1828
Biological Sciences			
Botany	154	202	211
Microbiology	63	60	54
Zoology	336	422	445
Division Totals	553	684	710
Physical Sciences			
Chemistry	470	552	582
Geology)	147	149	138
Geography)			27
Physics	178	169	215
Astronomy	24	51	55
Division Totals	819	921	1017
Mathematics and Statistics			
Mathematics	633	666	790
Statistics	27	49	90
Division Totals	660	715	880
Other	-	2	3
COLLEGE TOTALS	5758	6934	7990

TABLE 12: STUDENT-TO-FACULTY RATIOS (SEPT 1965) WITH AND WITHOUT TEACHING ASSISTANTS (TA's)

NOTE: S = F. T. E. Students = Student Credit Hours /15
F = F. T. E. Faculty
S/F Ratio = Student-to-faculty ratio without TA's
S/F* Ratio = Student-to-faculty ratio with TA's (on the assumption that 3 TA's are equivalent to one faculty member).
F* = F + (F. T. E. TA's)/3
F. T. E. TA's = $\frac{\text{Departmental Allocation for TA's}}{\$2200 \text{ (Average Stipend)}}$

Fine and Performing Arts	S	F	S/F Ratio	FTE TA's	F*	S/F* Ratio
Art	184	15	13.1	12	19	9.7
Music	117	10	11.7	0	10	11.7
Speech	318	21	15.2	3	22	14.5
Division	619	46	13.5	15	51	12.1
Humanities						
English	1237	64	19.3	40	77.1	16.0
German	242	16	15.1	14	20.7	11.7
Russian	40	4	10.0	0	4	10.0
History	778	36.3	21.4	8	39	20.0
Philosophy	98	6	16.3	3	7	14.0
Romance Languages	538	38	14.1	13	42.3	12.7
Division	2933	164.3	17.8	78	190.3	15.4
Social Science						
Economics	248	17	14.6	8	19.6	12.6
Government	435	26[1]	18.1	19	30.3	14.4
Psychology	702	23	30.5	20	29.7	23.6
Sociology)	392	15	26.1	20	21.7	18.1
Anthropology)	51	4	12.7	0	4	12.7
Division	1828	85[1]	22.0	67	105.3	17.4
Biological Sciences						
Botany	211	14.3	14.7	11	18	11.7
Microbiology	54	8	6.8	8	10.7	5.1
Zoology	445	24	18.5	44	38.6	11.5
Division	710	46.3	15.3	63	67.3	10.6

	S	F	S/F Ratio	FTE TA's	F*	S/F* Ratio
Physical Sciences						
Chemistry	582	35.5	16.4	45	50.5	11.5
Geology	138	11	12.5	13	15.3	9.0
Geography	27	1	27.0	2	1.7	16.2
Physics	215	22	9.8	23	29.6	7.2
Astronomy	55	2	27.5	2	2.7	20.6
Division	1017	71.5	14.2	85	99.8	10.2
Mathematics and Statistics						
Mathematics	790	45	17.6	29	54.7	14.4
Statistics	90	4	22.5	4	5.3	17.0
Division	880	49	18.0	33	60	14.7
Miscellaneous	3	1	3.0	0	1	3.0
COLLEGE	7990	463.1[1]	17.2	341	574.8	13.9

Footnotes

(1) Includes 3 faculty positions in Bureau of Government Research which together are counted as 1 teaching position.

TABLE 13: STUDENT TO FACULTY (S/F) RATIOS (FALL SEMESTER): 1962-1965

	1962	1963	1964	1965
S/F Ratio	18.6	18.1	18.8	17.2

(1) Computations based on figures for F.T.E. students (S) from Table 11 and on figures for F.T.E. faculty (F) from Table 6 of this report.

TABLE 14: DEGREES AWARDED

	1963-64	1964-65	1965-66
B. A.	478	571	674
B. S.	135	144	136
Total Bachelors	613	715	810
M. A.	51	82	121
M. F. A.	0	1	11
M. S.	66	64	108
Total Masters	117	147	240
Ph.D.	23	33[1]	42[1]
Grand Total	753	895	1,092

Footnotes

(1) The breakdown by major departments is shown below

Department	1964-65	1965-66
Botany	1	1
Chemistry	11*	15*
Economics	0	2
Geology	1	1
Government	2	1
History	1	0
Microbiology	3	0
Psychology	9	14
Sociology	0	2
Zoology	5*	6
Totals	33	42

* One of these is a 4-College Cooperative Ph.D.

TABLE 14A: ACADEMIC DISMISSALS (BY MAJOR, 1965-66)

Major	Number of Dismissals: Fall	Spring: Soph-Jr-Sr	Spring: Frosh	Total for yr	Total No. Majors(Fall)	% Dismissed
Fine and Performing Arts						
Art	1	2	5	8	113	7.1
Music	1	0	2	3	34	8.8
Speech	2	2	3	7	105	6.7
Totals	4	4	10	18	252	7.1
Humanities						
Classics	0	0	0	0	12	-
English	13	15	27	55	827	6.6
Journ. Stud.	2	0	4	6	94	6.4
History	15	7	12	34	579	5.9
French	2	1	4	7	193	3.6
Spanish	1	0	0	1	69	1.5
German	0	0	0	0	68	-
Russian	1	0	0	1	31	3.2
Philosophy	0	2	1	3	43	7.0
Totals	34	25	48	107	1916	5.6
Social Sciences						
Economics	8	7	3	18	128	14.1
Government	20	7	13	40	584	6.9
Psychology	8	9	13	30	384	7.8
Sociology	3	6	4	13	216	6.0
Anthropology	0	1	1	2	23	8.7
Totals	39	30	34	103	1335	7.7
Biological Sciences						
Botany	0	1	1	2	33	6.1
Microbiology	0	0	2	2	42	4.8
Zoology	10	3	17	30	349	8.6
Pre-dental	2	0	1	3	66	4.5
Pre-medical	2	1	0	3	154	1.9
Pre-veterinary	1	1	0	2	23	8.7
Totals	15	6	21	42	667	6.3

TABLE 14A: ACADEMIC DISMISSALS (BY MAJOR, 1965-66)
(continued)

Major	Number of Dismissals: Fall	Spring: Soph-Jr-Sr	Spring: Frosh	Total for yr	Total No. Majors (Fall)	% Dismissed
Physical Sciences						
Chemistry	4	1	2	7	212	3.3
Geology	1	1	1	3	41	7.3
Physics	2	3	0	5	72	6.9
Astronomy	0	1	1	2	16	12.5
Totals	7	6	4	17	341	5.0
Mathematics	11	11	14	36	549	6.1
CAS TOTALS	110	82	131	323	5060	6.4
Professional Schools						
Agriculture	26	11	21	58	487	11.9
Bus. Administration	46	29	50	125	831	15.1
Education	10	2	12	24	695	3.5
Engineering	28	12	19	59	894	6.6
Home Economics	4	2	9	15	268	1.8
Nursing	0	1	0	1	203	0.5
Physical Ed.	12	3	26	41	367	11.2
Public Health	4	1	2	7	109	7.3
Prof. Schools Totals	130	61	139	330	3854	8.6
U MASS TOTALS	240	143	270	653	8914	7.3

TABLE 15: BOOKS AND MONOGRAPHS, BY DEPARTMENT AND DIVISION(1965-66)

Note: In cases of multiple authorship the name of that author who is a member of our faculty is underlined.

FINE AND PERFORMING ARTS (3)

Music (2)

Bezanson, P. - String Quartet No. 1, 26 pages , Theodore Presser Co., 1965

Lebow, H. - Recording - Carl Nielsen: The Complete Music for Woodwinds and Piano, with Lark Woodwind Quintet. Lyrichord Records, 1965.

Speech (1)

Perry, V. G. - Oblique Gothic/ Gothique Oblique. Paris: Jean Grassin, 1965.

Reid, R. F., editor - Introduction to the Field of Speech. Chicago: Scott, Foresman, 1965, 260 pp. (This book was published while Professor Reid was still at Purdue).

HUMANITIES (22)

English (12)

Alspach, R. K. - Yeats and Innisfree. Dublin: The Dolmen Press, 1965, 16 pp.

Alspach, R. K., editor - The Variorum Edition of the Plays of W. B. Yeats. London and New York: The Macmillan Co., 1966, 1336 pp.

Clark, D. R. - Dry Tree. Dublin: The Dolmen Press, 1966, 32 pp.

Clark, D. R. and Skelton, R., editors - Irish Renaissance, A Gathering of Essays, Memoirs, Letters, and Dramatic Poetry from the Massachusetts Review. Dublin: The Dolmen Press, 1965, 168 pp.

Copeland, T. W. (General Editor) and Furber, H. (Editor) - The Correspondence of Edmund Burke, Vol. V

Emerson, E. H. - John Cotton, College and University Press, 1965, 176 pp.

Francis, R. - Come Out Into the Sun, Poems New and Selected, University of Massachusetts Press, 1965, 140 pp.

Hicks, J. H. Thoreau in Our Season, University of Massachusetts Press, 1966, 176 pp.

Langland, J. and Engle, P., editors - Poet's Choice, Delta, 1966. (A reprint, with alterations, in paperback.)

Mayer, M. - They Thought They Were Free: The Germans 1933-45, University of Chicago Press, 1966, 350 pp., 3rd Edition in hardcover; First Phoenix (paperback) edition, 1966.

McDonald, C. - The Rhetoric of Tragedy: Form in Stuart Drama, University of Massachusetts Press, 1966, 355 pp.

Porter, D. - The Art of Emily Dickinson's Poetry, Harvard University Press, 1966, 206 pp.

NOTE: The following British editions of earlier - published books have also appeared:

Fetler, A. - The Travelers. London: Victor Gollancz, 1966.

Chametzky, A. H. - Between Wars and Other Poems, Oxford University Press, 1966.

German-Russian (3)

Haas, W. - Aus Deutscher Geschichte, A Grader Reader, Prentice-Hall, 1966, 254 pp.

Heller, P. - Dialectics and Nihilism, University of Massachusetts Press, 1966, 344 pp.

Tikos, L. - E. Vargas Tatigkeit als Wirtschafts - analytiker und Publizist, Tubingen, Bohlau - Verlag, 1965, 101 pp.

History (3)

Bernhard, W. - Fisher Ames, Federalist and Statesman, 1758-1808, University of North Carolina Press, 1965, 372 pp.

Hart, R. - The Great White Fleet, Little, Brown & Co., 1965, 368 pp.

Wickwire, F. - The British Subministers and Colonial America, Princeton University Press, 1966.

Romance Languages (4)

Cassirer, T. and Hoyt, N. S. editors and translators - Encyclopedia, Selections, Indianapolis, Bobbs-Merrill, 1965, 400 pp.

Niedzielski, H. - Le Roman de Helcanus, Genève, Droz, 1966, 421 pp.

Raymond, A. G. and Kern, E. - La Joie de live, Premières lectures littéraires, Macmillan, 1966, 213 pp.

Raymond, A. G. - Jean Giraudoux - The Theatre of Victory and Defeat, University of Massachusetts Press, 1966, 196 pp. (English adaptation of Professor Raymond's book published in 1963 by Nizet in Paris).

SOCIAL SCIENCES (11)

Economics (2)

Holesovsky, V. and Lazarcik, G. - Trends in Czechoslovak Housing, Government, and Other Services, 1937-62. Occasional Paper of the Research Project on National Income in East and Central Europe, Op-2, Columbia University, 1965, 31 pp.

Martin, R. S. and Miller, R. - Economics and its Significance, Charles E. Merrill Books, 1965, 165 pp.

Government (6)

Braunthal, G. - Federation of German Industry and Politics. Ithaca: Cornell University Press, 1965, 389 pp.

Fenton, J. H. - Midwest Politics. New York: Holt, Rinehart, and Winston, 1966, 244 pp.

Havard, W. C. - Government and Politics of the United States. London: Hutchinson (Hutchinson University Library), 1965, 256 pp. (This book was first published in 1965 by LSU Press).

Houn, F. W. - Chinese Political Tradition. Washington, D. C.: Public Affairs Press, 1965, 130 pp.

Houn, F. W. - To Change a Nation: Propoganda and Indoctrination in Communist China. New Delhi: Eurasia.

Lewy, G. - I Nazisti e la Chiesa; L'Eglise Catholique et L' Allemagne Nazi; (Also German, British, and Dutch Editions of Professor Lewy's book which was first published in 1964 by McGraw Hill.)

Syed, A. - The Political Theory of American Local Government. New York: Random House, 1966, 225 pp.

Wiarda, H. J., editor - Dominican Republic Election Factbook. Washington, D. C. : Institute for the Comparative Study of Political Systems, 1966, 55 pp.

Psychology (1)

Myers, J. L. - Fundamentals of Experimental Design. Boston : Allyn and Bacon, 1966, 416 pp.

Sociology - Anthropology (2)

Fraser, T. M. - Fishermen of South Thailand, The Malay Villagers. Holt, Rinehart, and Winston, 1966, 110 pp.

Wilkinson, T. O. - The Urbanization of Japanese Labor: 1868-1955. University of Massachusetts Press, 1965, 243 pp.

BIOLOGICAL SCIENCES (3)

Botany (2)

Bigelow, H. - The Genus Clitocybe in North America: section Clitocybe, Lloydia, 1965, 14 pp.

Lockhart, J. A. - An Analysis of Interactions of Physical and Chemical Factors on Growth. Annual Review of Plant Physiology, 1965, 16 pp.

Zoology (1)

Anderson, E. - The Anatomy of Bovine and Ovine Pineals: Light and Electron Microscopic Studies. J. Ultrastructure Research, Special Supplement to Vol. 8, Academic Press, 80 pp.

PHYSICAL SCIENCES (2)

Chemistry (1)

Tobolsky, A. V. and MacKnight, W. J. - Polymeric Sulfur and Related Polymers, Wiley, 1966, 180 pp.

Brewster, R. Q. and McEwen, W. E. - Breve Corso Di Chimica Organica, Liviana Editrice in Padova, 1965, 323 pp. (Italian translation, by N. Siliprande and C. Gregolin, of Professor McEwen's textbook published earlier in U. S. and other countries).

Geology (1)

Pitrat, C. W. - Spiriferidina: Treatise on Invertebrate Paleontology, Part H, Brachiopoda, p. H667 - H728, figs. 543 - 593, Geol. Soc. Amer. and University of Kansas Press, 1965.

MATHEMATICS AND STATISTICS (0)

COLLEGE TOTAL: 41 Books and Monographs Published during 1965-66.

TABLE 16: RESEARCH AND TRAINING GRANTS AND CONTRACTS (1965-66)

NOTE: The Face Value/Year for each grant or contract in effect during 1965-66 was calculated by dividing the total face value by the number of years for which the grant or contract was awarded.

	Face Value/Year	No. of grants and contracts	Average Face Value/Year
Fine and Performing Arts			
Art	4,690	5	938
Music	749	2	375
Speech	38,860	3	12,954
Division Totals	$44,299	10	$4,430
Humanities			
English	49,120[1]	18	2,728
History	156,345[2]	10	15,635[2]
Ger-Russian	600	1	600
Romance Lang.	2,350	4	588
Philosophy	0	0	0
Division Totals	$208,415[2]	33	6,315[2]
Social Sciences			
Economics	11,426	3	3,809
Government	4,473	8	559
Psychology	316,913	29	10,928
Soc-Anthr.	84,157	12	7,013
Division Totals	$416,969	52	8,020
Biological Sciences			
Botany	212,880	18	11,827
Microbiology	133,513	11	12,138
Zoology	367,181	20	18,359
Division Totals	$713,574	49	14,563
Physical Sciences			
Chemistry	593,424	46	12,900
Geology	84,691	11	7,699
Physics and Astronomy	318,280	16	19,893
Division Totals	$996,395	73	13,650

Mathematics and Statistics			
Mathematics	48,700	5	9,750
Statistics	0	0	0
Division Totals	$48,700	5	9,750
COLLEGE TOTALS	$2,428,352	222	$10,940

Footnotes

(1) Professor Copeland's $189,000 grant was rated at 20 years in obtaining this total.

(2) Professor Albertson's $152,000 NDEA grant is largely responsible for this total.

TABLE 16A: SELECTED PROFESSIONAL ACTIVITIES OF THE FACULTY

Division	Faculty Member	Department	Position Held
FINE & PERF. ARTS	Norton, P. F.	Art	Director, Society of Architectural Historians
	Kamys, W.	Art	Governing Member, New England Contemporary Artists
	Perkins, L. M.	Art	President, Design Section, Ceramics Educational Council
			Secretary, Design Division, American Ceramics Society
	Lebow, H.	Music	Piano Soloist in California, Arizona, Connecticut, New York, and Massachusetts
	King, J.	Music	Organ Soloist in England and Holland
	Reid, R. F.	Speech	Editorial Board, Speech Monographs and The Journal of the American Forensic Association.
HUMANITIES	Alspach, R.	English	Editor, 3rd edition of Allan Wade's A Bibliography of the Writings of W. B. Yeats for Rupert Hart-Davis, London
	Chametzky, J.	English	Co-editor Massachusetts Review
	Duckert, A.R.	English	Associate Editor, Names Editorial Board, Dictionary of American Regional English Advisory Board, Linguistic Atlas of U.S. and Canada
	Hicks, J. H.	English	Co-editor, Massachusetts Review
	Kaplan, S.	English	Editor, Gehenna Press (Northampton, Mass.)

Division	Faculty Member	Department	Position Held
HUMANITIES	Mayer, M.	English	Consultant and Visiting Fellow, Center for the Study of Democratic Institutions
	Manheim, L.	English	Editor, Literature and Psychology
	Spivack, B.	English	Editor, World Publishing Co.
	Tucker, R.	English	Managing Editor, Massachusetts Review
	Born, J.	German	Participant, Kafka Seminar, Berlin, Germany
	Weigand, H. J.	German	President Modern Language Association of America
	Cantor, M.	History	Editor, Labor History
	DePillis, M. S.	History	Editor, American Section of Journal of Social History
	Potash, R. A.	History	Editorial Board, Hispanic-American Historical Review
			Consultant to U. S. State Dept. on Argentine affairs
	Goding, S. C.	R. Lang.	Director, Advanced NDEA Overseas Institute in France
			Editor, Bay State Foreign Language Bulletin
	Manheim, E.	R. Lang.	Associate Editor, Literature and Psychology
	Rothberg, I.	R. Lang.	Editor-in-chief, Hispania
			President, New England Modern Language Association
	Taylor, R.	R. Lang.	Associate Editor, Renaissance Society of America

Division	Faculty Member	Department	Position Held
	Weiner, S.	R. Lang.	Managing Editor, The French Review
SOCIAL SCIENCES	Howard, M.C.	Economics	Editorial Staff, Journal of Marketing
	Epstein, S.	Psychology	Member, NIH Small Grants Comm.
	Goss, A. E.	Psychology	Associate Editor, Psychological Reports
	Gordon, M. H.	Sociology	General Editor, Minorities in American Life Series, Prentice-Hall, Inc. Publishers
BIOLOGICAL SCIENCES	Bigelow, H.	Botany	Councilor, Mycological Society of America
	Gentile, A.	Botany	Co-chairman, N.Y. Academy of Science Conference of Plant Growth Regulators
	Cox, C. D.	Micro.	Editorial Board, Journal of Microbiology
			Chairman, Registry Committee, American Board of Micro. American Academy of Micro.
	Pfau, C.	Micro.	NIH Career Development Award
	Fairbairn, D.	Zoology	Editorial Board, American Journal of Epidemiology
			Editorial Board, The Journal of Parasitology
			Editorial Board, Parasitological Reviews
			Chairman, Tropical Medicine and Parasitology Study Section, NIH

Division	Faculty Member	Department	Position Held
BIOLOGICAL SCIENCES	Honigberg, B. H.	Zoology	Editorial Board, Transactions of American Microscopical Society Editorial Board, The Journal of Protozoology President, American Society of Protozoologists.
PHYSICAL SCIENCES	Hunsberger, I. M.	Chemistry	Member, Chemical Abstracts Advisory Board
	McEwen, W. E.	Chemistry	Member, Visiting Committee for Chemistry, Brookhaven National Laboratory Consulting Editor, Progress in Phosphorus Chemistry (Interscience) Editorial Board, Journal of Organic Chemistry
	Stein, R. S.	Chemistry	Executive Committee, Division of High Polymer Physics of the American Physical Society Advisory Board, Journal of Polymer Science
	Smith, H.T.U.	Geology	Organizing Committee, 7th Congress of International Association for Quarternary Research, Boulder, Colorado
	Gluckstern, R.L.	Physics	Consultant to Brookhaven National Laboratory and Los Alamos Scientific Laboratory on Theory of High Energy Accelerators
MATHEMATICS AND STATISTICS	Foulis, D.J.	Math.	Panel Member, NSF Fellowship Program
	Strother, W.L.	Math.	NDEA Panel Member

TABLE 17: NEW FACULTY RECRUITED (as of 7/25/66) FOR SEPTEMBER, 1966 BY RANK (FTE Basis)

Rank[1]	Type of Position Occupied: New	Old	Total
Professor	15 1/2	2 3/4	18 1/4
Associate Professor	10	3	13
Assistant Professor	27 1/2[2]	24 1/4[2]	51 3/4
Instructor	16	18	34
Totals	69[3]	48[4]	117

Footnotes

(1) Lecturers are counted at the rank corresponding to their salary.

(2) Seven of these appointments are "conditional", i.e. they will revert to instructor rank if the appointees do not receive the Ph.D. prior to September 1, 1966.

(3) Of this total, 8 served, during 1965-66, as replacements for faculty on LWOP. Starting in September, 1966, they will occupy new positions.

(4) Of this total, 5 had been on our faculty in the recent past.

TABLE 18: NEW FACULTY RECRUITED (AS OF 7/25/66) FOR SEPTEMBER 1966 BY DIVISION, DEPARTMENT, AND RANK (FTE basis)

Note: Expressions like 2-0-1-4=7 represent a total of 7 faculty distributed as follows: 2 Full Professors, 0 Associate Professors, 1 Assistant Professor, and 4 Instructors. Similarly, 5-4-12-4=25 and 15-12-35-13=75 have obvious meanings. "Conditional" appointments are counted at the Assistant Professor, rather than the Instructor, rank. Lecturers are counted at the rank corresponding to their salary.

	Type of Position Occupied		
	New	Old	Total
Div/Dept			
Fine and Performing Arts			
Art	0 - 0- 0 - 3 = 3	0 - 0- 1 - ½= 1½	0 - 0- 1 - 3½= 4½
Music	0 - 0- 3 - 1 = 4	0	0 - 0- 3 - 1 = 4
Speech	1 - 0- 2 - 3 = 6	0 - 0- 2 -3 = 5	1 - 0- 4 - 6 = 11
Totals	1 - 0- 5 - 7 = 13	0 - 0- 3 -3½= 6½	1 - 0- 8 -10½= 19½
Humanities			
Asian St. [1]	1 - 0- 0 - 0 = 1	----------0	1 - 0- 0 - 0 = 1
Comp. Lit.[1]	1 - 0- 0 - 0 = 1	----------0	1 - 0- 0 - 0 = 1
English	½- 0- 9 - 0 = 9½	0 - 0- 3¼-1½= 5¼	½- 0-12¼- 1½= 14¼
German-	2 - 0- 0 - 2 = 4	0 - 0- 0 -2 = 2	2 - 0- 0 - 4 = 6
Russ.[2]	1 - 0- 0 - 1 = 2	----------0	1 - 0- 0 - 1 = 2
History	1 - 0- 1½- 3½= 6	0 - 0- 3 -0 = 3	1 - 0- 4½- 3½= 9
Phil.	1 - 2- 1 - 0 = 4	0 - 0- 1 -0 = 1	1 - 2- 2 - 0 = 5
R. Lang.	1 - 3- 1 - 1 = 6	1 - 1- 0 -8 = 10	2 - 4- 1 - 9 = 16
Totals	8½- 5-12½- 7½= 33½	1 - 1- 7¼-11½=21¼	9½- 6-20¼-19 = 54¼
Social Sciences			
Economics	----------0	¼- 0- 0 -1 = 1¼	¼- 0- 0 - 1 = 1¼
Govt.	----------0	----------0	----------0
Psych.	----------0	0 - 0- 1 -0 = 1	0 - 0- 1 - 0 = 1
Soc-Anth.	1 - 0- 0 - 0 = 1	0 - 0- 2½-0 = 2½	1 - 0- 2½- 0 = 3½
Totals	1 - 0- 0 - 0 = 1	¼- 0- 3½-1 = 4¼	1¼- 0- 3½- 1 = 5¾
Biological Sciences			
Botany	0 - 0- 3 - 0 = 3	----------0	0 - 0- 3 - 0 = 3
Micro.	1 - 0- 0 - 0 = 1	----------0	1 - 0- 0 - 0 = 1
Zoology	0 - 0- 2 - 0 = 2	0 - 0- 2 -0 = 2	0 - 0- 4 - 0 = 4
Totals	1 - 0- 5 - 0 = 6	0 - 0- 2 -0 = 2	1 - 0- 7 - 0 = 8

TABLE 19: FACULTY VACANCIES (as of 7/25/66) FOR SEPTEMBER, 1966 (FTE Basis)

NOTE: Faculty ranks are indicated below by the same notation used in earlier charts.

Reason for Vacancy	Distribution (by rank)
Resignation, Death, etc.	3 3/4 - 1 - 5 - 2 = 11 3/4[1]
LWOP, etc.	1 - 0 - 3 1/2 - 1 = 5 1/2[2]
TOTAL VACANCIES	4 3/4 - 1 - 8 1/2 - 3 = 17 1/4
Vacancies used to "back up" stipends for TA's	2 - 1 - 4 - 1/2 = 7 1/2
EFFECTIVE VACANCIES	2 3/4 - 0 - 4 1/2 - 2 1/2 = 9 3/4

Footnotes

(1) Included in this total is the position corresponding to a faculty appointee who failed to arrive from India.

(2) Included in this total is the position of a faculty member whose salary is paid by an NIH Career Development Award.

TABLE 20: UNDERGRADUATE COURSES AND COURSE CHANGES

Key to Abbreviations and Symbols

E = Elementary (freshman-sophomore) courses
M = Major (junior-senior) courses
S = Seminar and special problems (senior) courses
+ designates a course added to curriculum
- designates a course deleted from curriculum

DIVISION	DEPT OR MAJOR	Type of course	Sept. 1965 Additions and deletions	Sept. 1966	(excluding seminars) Courses taught 1965-66 NUMBER	PERCENTAGE OF SEPT 1965 TOTAL
Fine & Perf. Arts	Art	E	5+ 0 =	5		
		M	21+ 1 =	22		
		S	4+ 0 =	4		
	Total		30+ 1 =	31	22	84
	Music	E	14+ 0 =	14		
		M	21+ 0 =	21		
		S	2+ 0 =	2		
	Total		37+ 0 =	37	27	77
	Speech	E	6+ 0 =	6		
		M	27+ 3 =	30		
		S	3+ 0 =	3		
	Total		36+ 3 =	39	32	97
Division Totals		E	25+ 0 =	25		
		M	69+ 4 =	73		
		S	9+ 0 =	9		
			103+ 4 =	107	81	86
Humanities	English	E	8+ 0 =	8		
		M	39+ 0 =	39		
		S	4+ 0 =	4		
	Total		51+ 0 =	51	46	98
	Journalism	E	0+ 0 =	0		
		M	4+ 0 =	4		
		S	1+ 0 =	1		
	Total		5+ 0 =	5	4	100

DIVISION	DEPT OR MAJOR	Type of course	Sept. 1965 Additions & deletions Sept. 1966	(excluding seminars) Courses taught 1965-66 NUMBER	PERCENTAGE OF SEPT 1965 TOTAL
Humanities (cont'd)	German	E	8+ 0 = 8		
		M	17+ 1 = 18		
		S	2+ 0 = 2		
	Total		27+ 1 = 28	19	76
	Russian	E	8+ 0 = 8		
		M	14+ 5 = 19		
		S	2+ 0 = 2		
	Total		24+ 5 = 29	15	68
	History	E	4+ 0 = 4		
		M	52+ 7 = 59		
		S	4- 2 = 2		
	Total		60+ 7 = 65		
			- 2	39	70
	Phil.	E	5+ 0 = 5		
		M	16+ 1 = 17		
		S	4+ 1		
			- 1 = 4		
	Total		25+ 2 = 26		
			- 1	15	71
Rom. Lang.	French	E	8+ 0 = 8		
		M	19+ 1 = 20		
		S	1+ 0 = 1		
	Total		28+ 1 = 29	21	78
	Spanish	E	10+ 1 = 11		
			+ 9		
		M	13- 5 = 17		
		S	1+ 0 = 1		
	Total		24+10		
			- 5 = 29	22	96
	Other Lang.	E	36+ 4 = 40		
		M	0+ 0 = 0		
		S	0+ 0 = 0		
	Total		36+ 4 = 40	18	50

DIVISION	DEPT OR MAJOR	Type of course	Sept. 1965 Additions & deletions Sept. 1966	Courses taught 1965-66 (excluding seminars) NUMBER	PERCENTAGE OF SEPT 1965 TOTAL
Humanities					
Division Totals		E	87+ 5 = 92		
		M	174+24 - 5 =193		
		S	19+ 1 - 3 = 17		
			280+30 - 8 =302	199	76
Social Sciences	Econ.	E	2+ 0 = 2		
		M	24+ 2 = 26		
		S	2+ 0 = 2		
	Totals		28+ 2 = 30	25	96
	Govt.	E	4+ 0 = 4		
		M	24+ 6 = 30		
		S	3+ 0 = 3		
	Totals		31+ 6 = 37	24	86
	Psych.	E	4+ 0 = 4		
		M	24+ 1 = 25		
		S	4+ 0 = 4		
	Totals		32+ 1 = 33	28	100
	Sociol.	E	2+ 0 = 2		
		M	19+ 2 = 21		
		S	0+ 0 = 0		
	Totals		21+ 2 = 23	20	95
	Anthr.	E	2+ 0 = 2		
		M	11+ 1 = 12		
		S	0+ 0 = 0		
	Totals		13+ 1 = 14	11	85
Division Totals		E	14+ 0 = 14		
		M	102+12 =114		
		S	9+ 0 = 9		
			125+12 =137	108	93

DIVISION	DEPT OR MAJOR	Type of course	Sept. 1965 Additions & Deletions Sept. 1966	(excluding seminars) Courses taught 1965-66 NUMBER	PERCENTAGE OF SEPT 1965 TOTAL
Biological Sciences	Botany	E	6+ 0 = 6		
		M	13+ 1 = 14		
		S	1+ 0 = 1		
	Totals		20+ 1 = 21	12	63
	Micro.	E	1+ 2 = 3		
		M	6+ 0 = 6		
		S	4+ 0 = 4		
	Totals		11+ 2 = 13	7	100
	Zoology	E	6+ 0 = 6		
		M	19+ 0 = 19		
		S	2+ 0 = 2		
	Totals		27+ 0 = 27	23	92
Division Totals		E	13+ 2 = 15		
		M	38+ 1 = 39		
		S	7+ 0 = 7		
			58+ 3 = 61	42	82
Physical Sciences	Astronomy	E	4+ 0 = 4		
		M	4+ 0 = 4		
		S	2+ 0 = 2		
	Totals		10+ 0 = 10	7	88
	Chemistry	E	13+ 2 - 2 = 13		
		M	25+ 0 = 25		
		S	2+ 0 = 2		
	Totals		40 +2 -2 = 40	38	100
	Geol. Geog.	E	2+ 0 = 2		
		M	18+ 0 = 18		
		S	4+ 0 = 4		
	Totals		24+ 0 = 24	18	90
	Physics	E	9+ 2 = 11		
		M	12+ 0 = 12		
		S	2+ 0 = 2		
	Totals		23+ 2 = 25	21	100
Division Totals		E	28 +4 -2 = 30		
		M	59+ 0 = 59		
		S	10+ 0 = 10		
			97+ 4 - 2 = 99	84	97

DIVISION	DEPT OR MAJOR	Type of course	Sept. 1965	Additions & Deletions	Sept. 1966	(excluding seminars) Courses taught 1965-66 NUMBER	PERCENTAGE OF SEPT 1965 TOTAL
Mathematics & Statistics	Math	E	14	+ 0	= 14		
		M	23	+ 9 - 5	= 27		
		S	2	+ 0	= 2		
	Totals		39	+ 9 - 5	= 43	35	95
	Stat.	E	2	+ 0	= 2		
		M	9	- 1	= 8		
		S	0	+ 0	= 0		
	Totals		11	- 1	= 10	8	73
Division Totals		E	16	+ 0	= 16		
		M	32	+ 9 - 6	= 35		
		S	2	+ 0	= 2		
			50	+ 9 - 6	= 53	43	90
Miscellaneous		E	0	+ 1	= 1		
		M	12	+ 2	= 14		
		S	0	+ 0	= 0		
			12	+ 3	= 15	6	50
College TOTALS		E	183	+12 - 2	=193		
		M	486	+52 -11	=527		
		S	56	+ 1 - 3	= 54		
			725	+65 -16	=774	563	84

TABLE 21: UNDERGRADUATE COURSES TAUGHT BY TEACHING ASSISTANTS, FALL 1965

NOTE: Below are listed all courses in which graduate teaching assistants have regularly-scheduled contact with students. Expressions such as 2/7 indicate that 2 out of a total of 7 sections are assigned to teaching assistants.

			Type of Section		
Division	Department	Course	Regular	Quiz	Labor Studio
Fine & Perf. Arts	Art	100 Basic Drawing			2/7
Division Totals					2/7
Humanities	English	111 Composition	76/106		
		112 Composition	8/8		
		113 Composition (Adv. Pl.)	1/9		
	German	101 Elementary	13/20		19/20
		102 Elementary			3/4
		107 Intermediate	2/16		
	French	003 Make-up	3/6		
		101 Elementary	1/8		
		102 Elementary	1/2		
		107 Intermediate	9/33		
		108 Intermediate	2/8		
	Spanish	101 Elementary	8/18		
		107 Intermediate	8/16		
	History	100 Dev. West. Civ.		10/68	
		101 Dev. West. Civ.		3/9	
	Philosophy	125 Logic		8/8	
Division Totals			132/250	21/85	22/24
Social Sciences	Economics	125 Elements			12/12[1]
	Government	100 American		12/36	
	Psychology	101 General (majors)		8/8	
		211 Sensation & Perception		2/2	

Division	Department	Course	Type of Section: Regular	Quiz	Labor Studio
	Psychology	241 Statistics		2/4	
		281 Educational		6/6	
	Sociology	101 Introductory	2/10		
Division Totals			2/10	30/56	12/12
Biological Sciences	Botany	100 Introductory			20/20
	Microbiology	150 Introductory			3/3
		250 General I			2/2
		260 General II			1/1
		310 Immunology			1/1
	Zoology	101 Introductory			44/44
		125 Animal Kingdom			2/2
		135 Physiol.			6/9
		137 Anatomy & Phys.			4/6
		200 Natural History			5/5
		221 Comp. Anat.			4/4
		223 Histology			4/6
		225 Dev. Biol.			3/3
		283 Parasitology			2/2
		360 Gen. Cell Physiol.			4/4
Division Totals					105/112
Physical Sciences	Chemistry	111 General		11/40	10/79/90[2]
		113 General (majors)		0/5	11/14
		125 Principles (Adv. Pl.)		0/1	1/1
		127 Analytic			3/3
		129 Qual. Anal.			1/1
		160 Organic (baby)			4/4
		167 Organic Lab.			4/4
		210 Quant. Anal.			1/1
		213 Instru. Anal.			2/2
		219 Electronic Instru.			3/3
		223 General Biochem.			6/6

Division	Department	Course	Type of Section: Regular	Quiz	Labor Studio
	Chemistry	261 Organic		8/10	
		263 Organic Lab.			21/21
		272 Qual. Organic			1/1
		287 Phys. Chem. Lab.			4/4
	Geology	101 Physical			18/20
		102 Historical			4/4
	Geography	135 Fundamentals			6/6
	Physics	103 Introductory			20/21
		105 General I			2/4
		106 General II		6/10	10/10
		107 General III			2/4
		109 Intro. (majors)			2/2
Divisional Totals				25/66	205/226
Mathematics & Statistics	Mathematics	011 Deficiency	2/2		
		111 Introductory	34/40		
		112 Finite	2/7		
		113 Survey Calc.	3/4		
		121 Alg. Trig.	4/4		
		123 A.G. & Calc.	8/20		
		124 A.G. & Calc.	4/5		
		135 A.G. & Calc. for Eng.	2/16		
		241 Diff. Eqns.	1/3		
Division Totals			56/97		
COLLEGE TOTALS, BY TYPE OF SECTION			190/357	76/207	346/381
COLLEGE TOTALS, ALL SECTIONS			612/945		

Footnotes

(1) Help or make-up sections.

(2) Of the 90 sections, 79 are handled by graduate teaching assistants and 10 by advanced undergraduates.

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